

Marcus Zulian Teixeira

NEW HOMEOPATHIC MEDICINES

Use of modern drugs according to the principle of similitude

Volume II

Homeopathic Materia Medica of Modern Drugs

2nd edition - revised and updated

**São Paulo
Author's Edition
2021**



Copyright © 2021 Marcus Zulian Teixeira (editor)

All rights reserved. No part of this publication may be reproduced, stored or transmitted, in any form or by any means, without the express permission of the editor.

ISBN: 978-65-00-18033-6 (22/02/2021)



How to cite this work:

Teixeira, Marcus Zulian. Homeopathic materia medica of modern drugs. 2nd edition - revised and updated. In: _____. *New homeopathic medicines: use of modern drugs according to the principle of similitude (Volume II)*. São Paulo: Marcus Zulian Teixeira, 2021, 1336 p. Available at: <https://pesquisa.bvsalud.org/portal/resource/pt/biblio-1148219>

Prof. Dr. Marcus Zulian Teixeira

<http://www.homeozulian.med.br> 

[Lattes Curriculum \(CNPQ\)](#)

[ORCID](#)

[Virtual Health Library \(VHL - Brazil\)](#)

Homeopathic Materia Medica of Modern Drugs

SUMMARY



Summary

Introduction	06
Principle of therapeutic similitude	07
Evidence of similitude in modern pharmacology	12
Homeopathic pathogenetic experimentation	17
Adverse events as pathogenetic manifestations of modern drugs	22
Use of modern drugs according to the principle of similitude	25
Benefits and limitations of the proposal	27
 Materia Medica	 29
Structure	30
Medicines - Alphabetical Arrangement	32
Letter A [Abacavir / Aztreonam]	33
Letter B [Bacillus Calmette-Guérin (BCG) / Butorphanol]	182
Letter C [Cabergoline / Cytarabine]	234
Letter D [Dacarbazine / Dyphylline]	373
Letter E [Econazole / Ezetimibe and Simvastatin]	463
Letter F [Factor IX / Fusidic acid]	519
Letter G [Gabapentin / Guanfacine]	566
Letter H [Haemophilus b Conjugate Vaccine / Hydroxyurea]	605
Letter I [Ibandronate / Ivermectin]	628
Letter J [Japanese Encephalitis Virus Vaccine]	690
Letter K [Kanamycin / Krypton Kr 81m]	691
Letter L [L-Tryptophan / Lyme Disease Vaccine]	697
Letter M [Mafenide / Mycophenolate]	740
Letter N [Nabilone / Nystatin and Triamcinolone]	814

Letter O [Octreotide / Oxytocin]	852
Letter P [Paclitaxel / Pyrvinium]	882
Letter Q [Quetiapine / Quinupristin and Dalfopristin]	967
Letter R [Rabeprazole / Rubidium Rb 82]	972
Letter S [Sacrosidase / Sympathomimetic Agents]	1015
Letter T [Tacrine / Typhoid Vi Polysaccharide Vaccine]	1075
Letter U [Undecylenic Acid / Ursodiol]	1165
Letter V [Vaccinia Immune Globulin Intravenous / Voriconazole]	1170
Letter W [Warfarin / Whole-cell DTP]	1203
Letter X [Xenon Xe 127 / Xylometazoline]	1204
Letter Y [Yellow Fever Vaccine / Yohimbine]	1206
Letter Z [Zafirlukast / Zopiclone]	1207
Medicines (Abbreviations)	1222
Scientific Publications	1254
Homeopathic use of modern medicines: utilization of the curative rebound effect	1255
“Paradoxical strategy for treating chronic diseases”	1268
New homeopathic medicines: use of modern drugs according to the principle of similitude	1271
Homeopathic use of modern drugs: therapeutic application of the organism paradoxical reaction	1290
‘New Homeopathic Medicines’ database	1307
Other scientific publications	1324
Bibliography	1331

Homeopathic Materia Medica of Modern Drugs

INTRODUCTION

Principle of therapeutic similitude

Evidence of similitude in modern pharmacology

Homeopathic pathogenetic experimentation

**Adverse events as pathogenetic manifestations
of modern drugs**

**Use of modern drugs according to the
principle of similitude**

Benefits and limitations of the proposal

Principle of therapeutic similitude

The homeopathic method of treatment of diseases is based in four pillars: *principle of cure by the similitude*, *proving of medicinal substances on healthy individuals*, *use of serially diluted and agitated medicines*, and *prescription of individualized medicines*. Although attributed great importance to dynamized medicine (ultra-high dilutions), which was introduced later in the model in order to minimize the symptomatic aggravations, the first two pillars are the foundation of homeopathic episteme, remaining to individualized medicine the essential condition for awakening the therapeutic response.

After his self-experimentation of *Cinchona officinalis*, Samuel Hahnemann sought for confirmation (strong arguments) through “analogy” and “enumeration”, by studying the clinical reports made by previous doctors, where he could find countless references that eventually led him to raise the principle of similitude to the level of a “natural law” as well as supported his use of inductive logic: *for a substance to heal definite symptoms in ill human beings it must elicit similar symptoms upon healthy experimental subjects*.

Inaugurating the homeopathy in 1796 with the publication of *Essay on a new principle for ascertain the curative power of drugs* in *Journal der praktischen Arzneykunde*,¹ Hahnemann described the *direct primary actions of drugs* and the consequent *indirect secondary action of the organism* to them, organizing the pharmacological effects of dozens of drugs of his time. Exemplifying:

Arsenic (*Arsenicum album*). **Direct primary action:** tendency to excite spasm in the blood vessels and chills, in daily paroxysms; continual use of large doses gradually causes an almost constant febrile state; decrease of the tonus of the muscular fiber and the sensitiveness of nerves (paralysis); stimulates cough; causes some chronic affections of the skin (with desquamation). **Indirect secondary action:** treatment of intermittent fever with daily recurrence, useful in hectic and remittent fever, in some types of paralysis, in cough, in similar diseases of the skin.

In the “Introduction” of the *Organon of homeopathic medicine*,² Hahnemann described hundreds of examples of involuntary homeopathic cures accomplished by doctors of the Old School. In this way, he was able to ground his early observations on the principle of therapeutic similarity on hundreds of bibliographic references stemming from different authors. To continue with the example of arsenic above:

“[...] And whence could arise that curative power of *arsenic* which exhibits in certain species of intermittent fevers, (a virtue attested by so many thousands of examples, but in the practical application of which, sufficient precaution has not yet been observed, and which virtue was asserted centuries ago by *Nicholas Myrepsus*, and subsequently placed beyond a doubt by the testimony of *Slevogt, Molitor, Jacobi, J. C. Bernhardt, Jiingken*,

¹ Hahnemann S. Essay on a new principle for ascertaining the curative power of drugs, and some examinations of the previous principles. *Journal der praktischen Arzneykunde*. 1796; 2: 391.

² Hahnemann S. Organon of homeopathic medicine. Third American edition. English version of the fifth German edition. New York: William Radde, 1849.

Introduction

Fauve, Brera, Darwin, May, Jackson, and Fowler), if it did not proceed from *its peculiar faculty of excit ingfever*, as almost every observer of the evils resulting from this substance has remarked, particularly *Amatus Lusitanus, Degner, Buchholz, Heun, and Knape*. We may confidently believe *E. Alexander*, when he tells us that *arsenic* is a sovereign remedy in some cases of angina pectoris, since *Tachenius, Guilbert, Preussius, Thilenius, and Pyl*, have seen it give rise to very strong *oppression of the chest; Gresselius*, to a *dyspnea approaching even to suffocation*; and *Majault*, in particular, saw it produce *sudden attacks of asthma excited by walking, attended with great depression of the vital powers*".

While putting into question the efficacy of the palliative or enantiopathic method of treatment (*Organon of medicine*,³ paragraphs 23, 52-62, 69), Samuel Hahnemann prioritized the homeopathic method of treatment as the most effective manner to employ medicines for the cure of chronic diseases, by prescribing to ill individuals a remedy able to elicit an artificial morbid state similar to the totality of symptoms of the individual case of disease to be healed (*Organon*, paragraphs 24-27):

"Important symptoms of persistent diseases have never yet been treated with such palliative, antagonistic remedies, without the opposite state, a relapse - indeed, a palpable aggravation of the malady - occurring a few hours afterwards. For a persistent tendency to sleepiness during the day the physician prescribed coffee, whose primary action is to enliven; and when it had exhausted its action the day - somnolence increased; - for frequent waking at night he gave in the evening, without heeding the other symptoms of the disease, opium, which by virtue of its primary action produced the same night (stupefied, dull) sleep, but the subsequent nights were still more sleepless than before; - to chronic diarrheas he opposed, without regarding the other morbid signs, the same opium, whose primary action is to constipate the bowels, and after a transient stoppage of the diarrhea it subsequently became all the worse; - violent and frequently recurring pains of all kinds he could suppress with opium for but a short time; they then always returned in greater, often intolerable severity, or some much worse affection came in their stead. For nocturnal cough of long standing the ordinary physician knew no better than to administer opium, whose primary action is to suppress every irritation; the cough would then perhaps cease the first night, but during the subsequent nights it would be still more severe, and if it were again and again suppressed by this palliative in increased doses, fever and nocturnal perspiration were added to the disease; - weakness of the bladder, with consequent retention of urine, was sought to be conquered by the antipathic work of cantharides to stimulate the urinary passages whereby evacuation of the urine was certainly at first effected but thereafter the bladder becomes less capable of stimulation and less able to contract, and paralysis of the bladder is imminent; - with large doses of purgative drugs and laxative salts, which excite the bowels to frequent evacuation, it was sought to remove a chronic tendency to constipation, but in the secondary action the bowels became still more confined; - the ordinary physician seeks to remove chronic debility by the administration of wine, which, however, stimulates only in its primary action, and hence the forces sink all the lower in the secondary its primary action, and hence the forces sink all the lower in the secondary action; - by bitter substances and heating condiments he tries to strengthen and warm the chronically weak and cold stomach, but in the secondary action of these palliatives, which are stimulating in their primary action only, the stomach becomes yet more inactive; - long

³ Hahnemann S. *Organon of medicine*. 6th Edn. (Translated by William Boericke). New Delhi: B Jain Publishers, 1991.

Introduction

standing deficiency of vital heat and chilly disposition ought surely to yield to prescriptions of warm baths, but still more weak, cold, and chilly do the patients subsequently become; - severely burnt parts feel instantaneous alleviation from the application of cold water, but the burning pain afterwards increases to an incredible degree, and the inflammation spreads and rises to a still greater height; - by means of the sternutatory remedies that provoke a secretion of mucus, coryza with stoppage of the nose of long standing is sought to be removed, but it escapes observation that the disease is aggravated all the more by these antagonistic remedies (in their secondary action), and the nose becomes still more stopped; - by electricity and galvanism, with in their primary action greatly stimulate muscular action, chronically weak and almost paralytic limbs were soon excited to more active movements, but the consequence (the secondary action) was complete deadening of all muscular irritability and complete paralysis; - by venesections it was attempted to remove chronic determination of blood to the head, but they were always followed by greater congestion; - ordinary medical practitioners know nothing better with which to treat the paralytic torpor of the corporeal and mental organs, conjoined with unconsciousness, which prevails in many kinds of typhus, than with large doses of valerian, because this is one of the most powerful medicinal agents for causing animation and increasing the motor faculty; in their ignorance, however, they knew not that this action is only a primary action, and that the organism, after that is passed, most certainly falls back, in the secondary (antagonistic) action, into still greater stupor and immobility, that is to say, into paralysis of the mental and corporeal organs (and death); they did not see, that the very diseases they supplied most plentifully with valerian, which is in such cases an oppositely acting, antipathic remedy, most infallibly terminated fatally. The old school physician rejoices that he is able to reduce for several hours the velocity of the small rapid pulse in cachectic patients with the very first dose of uncombined purple foxglove (which in its primary action makes the pulse slower); its rapidity, however, soon returns; repeated, and now increased doses effect an ever smaller diminution of its rapidity, and at length none at all - indeed - in the secondary action the pulse becomes uncountable; sleep, appetite and strength depart, and a speedy death is invariably the result, or else insanity ensues. How often, in one word, the disease is aggravated, or something even worse is effected by the secondary action of such antagonistic (antipathic) remedies, the old school with its false theories does not perceive, but experience teaches it in a terrible manner". (*Organon*, § 59)

In paragraphs 63 to 65 of *Organon*, Hahnemann described a physiological explanation for this "natural law of healing", grounds the principle of similitude on the *primary action of the drug* and the corresponding *secondary action* or *vital reaction by the organism*:

"Every agent that acts upon the vitality, every medicine, deranges more or less the vital force, and causes a certain alteration in the health of the individual for a longer or a shorter period. This is termed **primary action**. [...]. To its action our vital force endeavors to oppose its own energy. This resistant action is a property, is indeed an automatic action of our life-preserving power, which goes by the name of **secondary action** or **counteraction**". (*Organon*, § 63)

Hahnemann exemplifies this *universal mechanism of action of medicines (universal pharmacodynamic)*, observed in the different sensations and organic functions, in the pharmacological effects of treatments and drugs used at that time:

"[...] A hand bathed in hot water is at first much warmer than the other hand that has not been so treated (primary action); but when it is withdrawn from the hot water and again

Introduction

thoroughly dried, it becomes in a short time cold, and at length much colder than the other (secondary action). A person heated by violent exercise (primary action) is afterwards affected with chilliness and shivering (secondary action). To one who was yesterday heated by drinking much wine (primary action), today every breath of air feels too cold (counteraction of the organism, secondary action). An arm that has been kept long in very cold water is at first much paler and colder (primary action) than the other; but removed from the cold water and dried, it subsequently becomes not only warmer than the other, but even hot, red and inflamed (secondary action, reaction of the vital force). Excessive vivacity follows the use of strong coffee (primary action), but sluggishness and drowsiness remain for a long time afterwards (reaction, secondary action), if this be not always again removed for a short time by imbibing fresh supplies of coffee (palliative). After the profound stupefied sleep caused by opium (primary action), the following night will be all the more sleepless (reaction, secondary action). After the constipation produced by opium (primary action), diarrhea ensues (secondary action); and after purgation with medicines that irritate the bowels, constipation of several days' duration ensues (secondary action). And in like manner it always happens, after the primary action of a medicine that produces in large doses a great change in the health of a healthy person, that its exact opposite, when, as has been observed, there is actually such a thing, is produced in the secondary action by our vital force". (*Organon*, § 65)

Emphasizing that such secondary action by the organism (opposed in character to the primary action of the drug) is observed "in each and every instance with no exceptions", with ponderable or infinitesimal doses, in both healthy and ill individuals, Hahnemann rises the principle of similitude to the level of a "natural law" (*Organon*, paragraphs 58, 61, 110-112).

"In those older prescriptions of the often dangerous effects of medicines ingested in excessively large doses we notice certain states that were produced, not at the commencement, but towards the termination of these sad events, and which were of an exactly opposite nature to those that first appeared. These symptoms, the very reverse of the primary action (§ 63) or proper action of the medicines on the vital force are the reaction of the vital force of the organism, its secondary action (§ 62-67), of which, however, there is seldom or hardly ever the least trace from experiments with moderate doses on healthy bodies, and from small doses none whatever. In the homoeopathic curative operation the living organism reacts from these only so much as is requisite to raise the health again to the normal healthy state". (*Organon*, § 112)

In the terms of modern scientific reason and physio-pharmacological concepts, the *primary action* adduced by Hahnemann corresponds to the *therapeutic, adverse and side effects* of conventional drugs. The *secondary action* or *vital reaction*, in turn, corresponds to the *rebound effect* or *paradoxical reaction by the organism*, which has been observed after the discontinuation of several classes of drugs that act contrarily to the symptoms of diseases (palliative drugs, enantiopathic or antipathic).

Analogously to traditional secondary action of homeopathic medicines, the *rebound effect of modern drugs* can be used for therapeutic purposes, namely to stimulate homeostatic

Introduction

healing reactions provided they are prescribed according to the principle of similitude of symptoms, as proposed in the past^{4,5,6,7,8} and described in detail below.⁹

The election of the principle of similitude to the category of “natural law”, scientifically based in the first volume (*Scientific Basis of the Principle of Similitude in Modern Pharmacology*) of this collection, endorse and allow such practice.

⁴ Teixeira MZ. Semelhante cura semelhante: o princípio de cura homeopático fundamentado pela racionalidade médica e científica [Similar cures similar: the homeopathic cure principle based by the medical and scientific rationality]. São Paulo: Editorial Petrus, 1998. Available at: https://www.homeozulian.med.br/homeozulian_visualizarlivroautor.asp?id=3

⁵ Teixeira MZ. Similitude in modern pharmacology. *Br Homeopath J.* 1999; 88(3): 112-120. Available at: <https://doi.org/10.1054/homp.1999.0301>

⁶ Teixeira MZ. Homeopathic use of modern medicines: utilisation of the curative rebound effect. *Med Hypotheses.* 2003; 60(2): 276-283. Available at: [https://doi.org/10.1016/S0306-9877\(02\)00386-9](https://doi.org/10.1016/S0306-9877(02)00386-9)

⁷ Teixeira MZ. Matéria médica comum: utilização homeopática da patogenesia dos fármacos modernos [Common materia medica: homeopathic use of modern allopathic drugs pathogenesis]. *Rev Homeopatia (AMHB).* 1994; 4: 108-115. Available at: [ResearchGate](https://www.researchgate.net/publication/312511111)

⁸ Teixeira MZ. ‘Paradoxical strategy for treating chronic diseases’: a therapeutic model used in homeopathy for more than two centuries. *Homeopathy* 2005; 94(4): 265-266. Available at: <https://doi.org/10.1016/j.homp.2005.08.018>

⁹ Teixeira MZ. New homeopathic medicines: use of modern drugs according to the principle of similitude. *Homeopathy.* 2011; 100 (4): 244-252. Available at: <https://doi.org/10.1016/j.homp.2011.01.002>

Evidence of similitude in modern pharmacology

The same hypothetic “modus tollens” used by Hahnemann to ground the principle of therapeutic similarity corresponds to the “null hypothesis” of modern statistical methods. This author also applied it for the recent decades to study the “sad results of the antagonistic employment of medicines” (principle of contrary) of modern drugs according to modern physio-pharmacological notions such as *rebound effect* or *paradoxical reaction of the organism* (viz., the *secondary action or vital reaction of the homeopathic model*).

“Had physicians been capable of reflecting on the sad results of the antagonistic employment of medicines, they had long since discovered the grand truth, *that the true radical healing art must be found in the exact opposite of such an antipathic treatment of the symptoms of disease*; they would have become convinced, that as a medicinal action antagonistic to the symptoms of the disease (an antipathically employed medicine) is followed by only transient relief, and after that is passed, by invariable aggravation, the converse of that procedure, the homeopathic employment of medicines according to similarity of symptoms, must effect a permanent and perfect cure, if at the same time the opposite of their large doses, the most minute doses, are exhibited. But neither the obvious aggravation that ensued from their antipathic treatment, nor the fact that no physician ever effected a permanent cure of disease of considerable or of long standing unless some homeopathic medicinal agent was accidentally a chief ingredient in his prescription, nor yet the circumstances that all the rapid and perfect cures that nature ever performed (§ 46), were always effected by the supervening upon the old disease of one of a similar character, ever taught them, during such a long series of centuries, this truth, the knowledge of which can alone conduce to the benefit of the sick”. (*Organon*, § 61)

Bridging the gap between the homeopathic principle of treatment and modern pharmacology, there are countless reports in pharmacological compendia and clinical and experimental trials published in scientific journals, which point to a *secondary reaction by the organism opposing the primary action of a drug*, which thus confirm Hahnemann’s early observations. As said previously, such secondary action, aiming at keeping organic homeostasis, has been named by modern scientific reason as *rebound effect* or *paradoxical reaction* by the organism.

To illustrate: drugs classically used in the treatment of *angina pectoris* (β -blockers, calcium channel blockers, nitrates, etc.) with beneficial effects in their primary effect (anti-angina), might awaken an paradoxical increase of the frequency and intensity of chest pain after discontinuation or irregular use of doses, which sometimes does not respond to any therapeutic means. Drugs used for the control of *arterial hypertension* (α -2 agonists, β -blockers, ACE inhibitors, MAO inhibitors, nitrates, sodium nitroprusside, hydralazine, etc.) might produce rebound arterial hypertension as a paradoxal reaction of the organism to the primary stimulus; *antiarrhythmic* drugs (adenosine, amiodarone, β -blockers, calcium channel blockers, disopyramide, flecainide, lidocaine, mexiletine, moricizine, procainamide, quinidine, digital, etc.) when treatment is interrupted may awaken a rebound exacerbation of basal ventricular arrhythmias. *Anticoagulant* drugs (argatroban, bezafibrate, heparin, salicylates, warfarin, clopidogrel, etc.), employed due to their primary effect in the

Introduction

prophylaxis of thrombosis can promote thrombotic complications as paradoxical reaction of the organism. In the use of psychiatric drugs such as *anxiolytics* (barbiturates, benzodiazepines, carbamates, etc.), *sedative-hypnotics* (barbiturates, benzodiazepines, morphine, promethazine, zopiclone, etc.), *stimulants of the central nervous system* (amphetamines, caffeine, cocaine, mazindol, methylphenidate, etc.), *antidepressant* (tricyclic, MAO inhibitors, etc.) or *antipsychotic* (clozapine, phenothiazines, haloperidol, pimozide, etc.) it can be observed a paradoxical reaction of the organism, seeking to keep organic homeostasis, promote the appearance of symptoms contrary to the ones expected of their primary therapeutic use, consequently worsening the initial clinical picture. Drugs with *anti-inflammatory* primary action (corticoids, ibuprofen, indomethacin, paracetamol, salicylates, etc.) might trigger paradoxical reactions by the organism that increases inflammation together with the serum concentration of its mediators. Drugs with *analgesic* primary action (caffeine, calcium channels blockers, clonidine, ergotamine, methysergide, opiates, salicylates, etc.) can exhibit significant hyperalgesia as rebound effect. *Diuretics* (furosemide, torasemide, triamterene, etc.) enantiopathically used to diminish the volume of plasma (edema, arterial hypertension, congestive heart failure, etc.) may cause rebound retention of sodium and potassium thus increasing the basal volume of plasma. Drugs primarily used as *anti-dyspeptic* (antacids, H₂ antagonists, misoprostol, sucralfate, etc.) in the treatment of gastritis and gastro-duodenal ulcers might promote, after the primary decrease of acidity, rebound increase of the production of hydrochloric acid by the stomach eventually causing perforation of chronic gastro-duodenal ulcers. *Bronchodilators* (adrenergic drugs, sodium chromoglycate, epinephrine, ipratropium, nedocromil, etc.) used in the treatment of bronchial asthma can worsen bronchial constriction as paradoxical response by the organism to the interruption or discontinuation of treatment. Etc.^{10,11,12}

Evidenced by clinical and experimental pharmacology,^{13,14} the properties of the *paradoxical reaction (rebound effect) of the organism* are the same as the ones of the *homeopathic vital reaction (secondary action)* described by Hahnemann (*Organon of medicine*, paragraphs 59, 64, 69): (i) it appears only in susceptible individuals (around 5% of the population), who present in their constitution symptoms similar to the pathogenetic effects of the drug; (ii) it does not depend on the drug, repetition of doses or type of symptoms (disease); (iii) it appears after the primary action of the drug (discontinuation), as an automatic manifestation of the organism; (iv) it induces an organic state (symptoms) opposite and greater in intensity and/or duration than the primary action of the drug; (v) the

¹⁰ Teixeira MZ. Semelhante cura semelhante: o princípio de cura homeopático fundamentado pela racionalidade médica e científica [Similar cures similar: the homeopathic cure principle based by the medical and scientific rationality]. São Paulo: Editorial Petrus, 1998. Available at: https://www.homeozulian.med.br/homeozulian_visualizarlivroautor.asp?id=3

¹¹ Teixeira MZ. Similitude in modern pharmacology. *Br Homeopath J.* 1999; 88(3): 112-120. Available at: <https://doi.org/10.1054/homp.1999.0301>

¹² Teixeira MZ. O princípio da similitude na moderna farmacologia [Similitude in modern pharmacology]. *Rev Homeopatia.* (São Paulo) 1999; 64(1-4): 45-58. Available at: [ResearchGate](https://www.researchgate.net/publication/312511111)

¹³ Teixeira MZ. Antidepressants, suicidality and rebound effect: evidence of similitude? *Homeopathy.* 2009; 98(2): 114-121. Available at: <https://doi.org/10.1016/j.homp.2009.02.004>

¹⁴ Teixeira MZ. Statins withdrawal, vascular complications, rebound effect and similitude. *Homeopathy.* 2010; 99(4): 255-262. Available at: <https://doi.org/10.1016/j.homp.2010.01.001>

Introduction

magnitude of its effect is proportional to the intensity of the primary action (dose) of the drug.

As further peculiar characteristics of this phenomenon, the *rebound effect* or *paradoxical reaction of the organism* manifests itself within a variable period of time (hours to weeks) after the interruption or discontinuance of treatment. It also lasts a variable period of time (hours to weeks) as a function of the characteristic of the drug and the idiosyncrasy of each individual.

Despite the countless number of scientific studies proving the *rebound effect of modern drugs* that have been published in high impact factor journals, whenever the mechanism of action is discussed in either learning contexts or public divulgation, it is systematically neglected. In this way, it is dismissed a “natural phenomenon” (described by homeopathy more than two centuries ago) that could avoid countless fatal iatrogenic events arising from the use of modern enantiopathic drugs. The situation could be the exact opposite were such evidences included within the body of modern medical knowledge.

Evidence of similitude in fatal iatrogenic events of modern drugs

Despite the idiosyncratic nature of such phenomenon, which appears in about 5% of individuals – and for the same reason justifies the need to *individualize medicines* in homeopathic treatments – contemporary scientific evidences point to the occurrence of *severe and fatal iatrogenic effects* as a function of the paradoxical reaction of the organism following the discontinuance of several classes of modern enantiopathic drugs.¹⁵

Recent meta-analyses have shown that, since they have a primary anticoagulant action, all types on non-steroidal anti-inflammatory drugs (NSAIDs), either selective (rofecoxib, celecoxib, etc.) or non-selective (salicylates, diclofenac, naproxen, ibuprofen, etc.) inhibitors of enzyme cyclooxygenase awaken thrombogenic paradoxical reaction after discontinuation, leading to a significant increase of the incidence of thrombosis and causing fatal vascular events [acute myocardial infarction (AMI) and encephalic vascular accidents (EVA)].¹⁶

Analogously, further meta-analyses indicate that long-acting β -agonist bronchodilators (salmeterol, formoterol, etc.) after their primary bronchodilator action cause significant irreversible and fatal paradoxical bronchospasm.¹⁷ Several studies have shown that antidepressant agents inhibiting the recapture of serotonin (SSRIs) promote a rebound exacerbation of suicidality (suicidal ideas or behavior) after an initial improvement of this

¹⁵ Teixeira MZ. Evidence of the principle of similitude in modern fatal iatrogenic events. *Homeopathy*. 2006; 95(4): 229-236. Available at: <https://doi.org/10.1016/j.homp.2006.06.004>

¹⁶ Teixeira MZ. NSAIDs, Myocardial infarction, rebound effect and similitude. *Homeopathy*. 2007; 96(1): 67-68. Available at: <https://doi.org/10.1016/j.homp.2006.11.009>

¹⁷ Teixeira MZ. Bronchodilators, fatal asthma, rebound effect and similitude. *Homeopathy*. 2007; 96(2):135-7. Available at: <https://doi.org/10.1016/j.homp.2007.02.001>

Introduction

same symptom.¹⁸ The same is the case of the various types of statins (simvastatin, lovastatin, atorvastatin, etc.) resulting in paradoxical and fatal vascular events (AMI, EVA) after a primary increase of their pleiotropic or vascular protective effects.¹⁹ Recent research shows that, similar to other anti-dyspeptic agents, proton-pump inhibitors (PPIs, such as omeprazole, pantoprazole, esomeprazole, etc.) cause rebound hypergastrinemia and acid hypersecretion after an initial improvement of gastric acidity, thus exacerbating gastritis and ulcers (perforation of chronic ulcers) gastric cancer, carcinoid tumor and so forth.²⁰

By comparison to placebo, it has been observed a risk 3.4 times higher of fatal vascular events after the discontinuance of salicylates, 1.52 higher after the discontinuance of NSAIDs and 1.67 after the discontinuance of rofecoxib. The risk of fatal bronchoconstriction was 4 times higher after discontinuance of long-acting bronchodilators, which 1 episode of rebound bronchospasm followed by death per 1,000 patients/year/use, corresponding to 4,000-5,000 deaths/year in the USA (40,000-50,000 worldwide) due to the high level of use of such drugs.²¹ Including tiotropium in the analysis, recent study shows that bronchospasm followed by death reaches 1.7% and 2.1% in patients with moderate-to-very-severe chronic obstructive pulmonary disease (COPD) in use of tiotropium and salmeterol, respectively.²²

The risk of suicidal behavior was 6 times higher after discontinuance of SSRIs, which represents about 5 rebound suicidality events per 1,000 teenage patients/year/use, i.e. 16,500 suicidality/year only in teenagers and only in the USA.²³ After discontinuation of statins by comparison to no treatment, mortality risk was 1.69 higher, the risk of fatal vascular events was 19 times higher, corresponding to hundreds of thousands of episodes due to the high level of use of such drugs.²⁴ Regarding PPIs, 40% of users report rebound acid hypersecretion.²⁵

¹⁸ Teixeira MZ. Antidepressants, suicidality and rebound effect: evidence of similitude? *Homeopathy*. 2009; 98(2): 114-121. Available at: <https://doi.org/10.1016/j.homp.2009.02.004>

¹⁹ Teixeira MZ. Statins withdrawal, vascular complications, rebound effect and similitude. *Homeopathy*. 2010; 99(4): 255-262. Available at: <https://doi.org/10.1016/j.homp.2010.01.001>

²⁰ Teixeira MZ. Rebound acid hypersecretion after withdrawal of gastric acid suppressing drugs: new evidence of similitude. *Homeopathy*. 2011; 100 (3): 148-156. Available at: <https://doi.org/10.1016/j.homp.2011.05.003>

²¹ Teixeira MZ. Bronchodilators, fatal asthma, rebound effect and similitude. *Homeopathy*. 2007; 96(2):135-7. Available at: <https://doi.org/10.1016/j.homp.2007.02.001>

²² Vogelmeier C, Hederer B, Glaab T, Schmidt H, Rutten-van Mölken MP, Beeh KM, et al. Tiotropium versus salmeterol for the prevention of exacerbations of COPD. *N Engl J Med*. 2011; 364(12): 1093-1103. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/21428765>

²³ Teixeira MZ. Antidepressants, suicidality and rebound effect: evidence of similitude? *Homeopathy*. 2009; 98(2): 114-121. Available at: <https://doi.org/10.1016/j.homp.2009.02.004>

²⁴ Teixeira MZ. Statins withdrawal, vascular complications, rebound effect and similitude. *Homeopathy*. 2010; 99(4): 255-262. Available at: <https://doi.org/10.1016/j.homp.2010.01.001>

²⁵ Teixeira MZ. Rebound acid hypersecretion after withdrawal of gastric acid suppressing drugs: new evidence of similitude. *Homeopathy*. 2011; 100 (3): 148-156. Available at: <https://doi.org/10.1016/j.homp.2011.05.003>

Introduction

According to the previous evidence, the average time for manifestation of rebound effect or paradoxical reaction after discontinuation of treatment does not vary among different types of drugs, e.g. 10 days for aspirin, 14 days for NSAIDs, 9 days for rofecoxib, 7 days for SSRIs and 7 days for statins. Regarding anti-dyspeptic agents, rebound acid hypersecretion occurs within 1 hour after a standard dose of antacids, 2 days after a 4-week-course of H₂-receptor antagonists and 1 to 2 weeks after a 4 to 8 week-course of PPIs. Rebound phenomena last 10 days after a 4-week-course of H₂-receptor antagonists and 2 or 4 weeks after a 4 or 8-week-course of PPIs, respectively. Duration of treatment did not show direct correlation with the appearance of rebound effect, however, drugs with intense palliative action i.e. that significantly suppress the primary symptoms of disease, exhibit a proportional frequency/intensity of paradoxical reactions.

Homeopathic pathogenetic experimentation

In order to learn the healing properties of the medicines to be prescribed according to the principle of therapeutic similitude, homeopathy employs pathogenetic experimentation (also known as homeopathic pathogenetic trials, HPTs) as its model of clinical pharmacological research (similar to the modern “phase I studies” of modern pharmacological research). HPTs take into account all kinds of *primary actions* or *pathogenetic manifestations* (mental, general and local symptoms) elicited by drugs on the state of health of human beings, which are known in modern pharmacology as *therapeutic*, *adverse* or *side effects* of drugs.

Hahnemann stipulated strict premises for homeopathic pathogenetic trials (*Organon*, paragraphs 105-145), nevertheless, the Homeopathic Materia Medica is a compilation of the signs and symptoms observed after the experimentation of thousands of substances on both healthy and ill individuals with ponderal (substances in crude state) or infinitesimal (potentiated medicines) doses, resulting in artificial morbid states that allow for the application of the homeopathic method of treatment.

Ideally, Hahnemann indicated that pathogenetic trials ought to be carried out with “moderate doses” of drugs on “healthy individuals”, *to avoid confounding the true effects of drugs and the symptoms of disease* (*Organon*, paragraphs 106-109). Nevertheless, he himself tested medicines in ponderal doses and/or on ill individuals as it can be seen in *Fragmenta de viribus medicamentorum positivis*, *Materia Medica Pura* and *Chronic Diseases*.

Regarding experimentation on the sick, Hahnemann held as valid the pathogenetic manifestations arising from a “simple medicine employed for a curative purpose”, provided one can select “the symptoms which, during the whole course of the disease, might have been observed only a long time previously, or never before, consequently new ones, belonging to the medicine” (*Organon*, paragraph 142).

Although in the same paragraph Hahnemann highlights the difficulty in distinguishing between the effects of a remedy and the symptoms of disease (“it is a subject appertaining to the higher art of judgment, and must be left exclusively to masters in observation”), according to the strict protocols of modern clinical research of new drugs (phases I to IV studies) and the resulting classification of the adverse events observed, the *predictability*, *frequency* and *causality* of such effects are sufficient grounds to assimilate them to “new symptoms” of tested drugs as follows.

To substantiate the validity of pathogenetic trials with ponderal doses and/or on ill individuals, Hahnemann observed that the effects of experiments described by previous authors carried out with “large doses of medicinal substances” on healthy (poisonings) and ill (therapeutic overdoses) individuals were very similar to his observations while testing

Introduction

the very same substances on himself and other healthy individuals (*Organon*, paragraphs 110-112).

Analogously to the classification of the frequency of adverse events of modern drugs, Hahnemann writes that “some symptoms are produced by the medicines more frequently - that is to say, in many individuals, others more rarely or in few persons, some only in very few healthy bodies” (*Organon*, paragraph 116). Thus, “all the symptoms peculiar to a medicine do not appear in one person, nor all at once, nor in the same experiment”, and for this reason it is needed “numerous observations on suitable persons” in order to find out the full picture of the medicinal disease (*Organon*, paragraphs 134-136).

According to their power to cause alterations in the state of health of human beings (*pathogenicity*), Hahnemann classified drugs in “strong” (heroic), “moderate” and “weak”, and recommended to employ them in doses inversely proportional to their pathogenetic power (*Organon*, paragraph 121).

Regarding the pharmacotechnical preparation of the tested drugs, Hahnemann notices that substances in “crude state” (ponderal doses) “do not exhibit nearly the full amount of the powers that lie hidden in them, which they do when they are taken for the same object in high dilutions potentized by proper trituration and succussion”. For this reason, he suggested to carry out pathogenetic trials with daily doses of 4 to 6 globules of the 30th potency and to increase progressively the number of globules according to individual susceptibility (*Organon*, paragraphs 128-129).

Furthermore, after the initial intake of a “sufficiently strong dose” (i.e., a large number of potentiated globules), the experimental subject can perceive “the order of succession of the symptoms” and “the duration of the action of a drug” (*Organon*, paragraph 130), whereas with the use of increasing and successive doses, he or she can learn “the various morbid states that this medicine is capable of producing in a general manner, but he cannot ascertain their order of succession or duration of the action” (*Organon*, paragraphs 131, 132).

Pathogenetic trials with ponderal doses and/or on ill individuals

As it was mentioned above, although ideally HPTs ought to be carried out with potentiated drugs on healthy individuals, the Homeopathic Materia Medica is full of signs and symptoms derived from the experimentation of medicines in ponderal doses and/or on ill individuals. Analogously, homeopathic treatment was also accomplished with ponderal doses on the grounds of the pathogenetic manifestations observed after the intake of ponderal doses by healthy (poisonings) and ill (therapeutic overdoses) individuals.

Introduction

In order to have a clearer notion of these singular features of homeopathic practice, the following summary of the historical reviews by Robert E. Dudgeon²⁶ and Richard Hughes²⁷ might be useful.

In the early years of homeopathy, Hahnemann applied the principle of therapeutic similitude with drugs in ponderal doses on the grounds of the pathogenetic symptoms awakened by such substances on healthy and ill individuals. This allowed him to heal a series of chronic, acute and epidemic diseases, as described in *Essay on a new principle*,²⁸ published in 1796: uterine colic with *Matricaria chamomilla*; autumnal dysentery with *Arnica montana*; painful indurations of the lymph nodes with *Conium maculatum*; paralytic and spasmodic affections with *Solanum dulcamara*; chronic hemorrhages, mania and seizures with *Hyosciamus niger*; tremors, fasciculations, cramps and intermittent fevers with *Ignatia amara*; amaurosis, cataracts and opacities of the cornea with *Anemona pratensis*, etc. By keeping the same procedure, he was also able to heal a large number of patients suffering from continual and remittent fevers with *Ignatia amara*, *Opium*, *Camphora*, *Ledum palustre* and *Aconitum napellus*.²⁹

In 1799, during an epidemic of scarlet fever,³⁰ Hahnemann used for the first time diluted and agitated doses of *Belladonna*, *Opium* and *Ipeca* in order to decrease the pathogenetic power of doses and thus avoid aggravation.³¹ In 1814, during the treatment of typhus or hospital fever,³² Hahnemann outlined the pharmacotechnical method of potentiation (serial dilutions and strong agitation) in the preparation of *Bryonia alba*, *Hyosciamus niger* and *Rhus toxicodendron*, of which he administered one single drop of the 12th attenuation to each patient, since he held it a “very strong dose”. The *theory of potentiation* strictly speaking only appeared in 1827,³³ when Hahnemann incorporated the processes of trituration and succussion into the preparation of the “homeopathic medicinal attenuations” in order to develop and exalt the “dynamic medicinal powers of natural substances”.

²⁶ Dudgeon RE. Lectures on the theory and practice of homoeopathy. New Delhi: B Jain Publishers; 1982 (Reprint edition). Lectures VII e XII.

²⁷ Hughes R. A manual of pharmacodynamics. 6th Edn. New Delhi: B Jain Publishers; 1980 (Second reprint edition). Lecture II.

²⁸ Hahnemann S. Essay on a new principle for ascertaining the curative power of drugs, with a few glances at those hitherto employed. In: Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).

²⁹ Hahnemann S. Some kinds of continued and remittent fevers. In: Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).

³⁰ Hahnemann S. Cure and prevention of scarlet-fever. In: Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).

³¹ Hahnemann S. On the power of small doses of medicine in general, and of *Belladonna* in particular. In: Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).

³² Hahnemann S. Treatment of the typhus or hospital fever at present prevailing. In: Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).

³³ Hahnemann S. How can small doses of such very attenuated medicines as homoeopathy employs have any action on the sick? In: Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).

Introduction

In 1805, Hahnemann stipulated the premises to carry out pathogenetic trials with minimal doses and on healthy individuals in *The medicine of experience*,³⁴ as the outcome of his previous testing of medicines on himself, friends and relatives.

That very same year he published the pathogenetic studies of 27 remedies in a book entitled *Fragmenta de viribus medicamentorum positivis, sive in sano corpore humano observatis*,³⁵ which thus represents the first homeopathic materia medica that Hahnemann used in his clinical practice. The sources of the pathogenetic symptoms listed were his own observations (of poisonings, therapeutic overdoses, self-experimentation and tests on other healthy individuals) as well as the ones “by others” and reported in the literature. Although he gave no information about the doses and mode of administration of the drugs, it is believed that he began with single strong doses (in solution), to repeat them whenever he thought it was needed, after the end of the action of the previous dose, thus complying with the premises he had stated earlier.³⁶

Six years later, in 1811, Hahnemann published the first volume of *Reine Arzneimittellehre* (*Materia Medica Pura*),^{37,38} which included 6 new and 6 older (already published in *Fragmenta*) pathogenetic studies, with significant additions of symptoms. In 1816, the second volume was published containing the pathogenetic effects of 8 remedies and 3 trials with magnet; in 1817, the third volume, with 8 remedies; in 1818, the fourth volume, with 12 remedies; in 1819, the fifth volume, with 11 remedies; and finally in 1812, the sixth volume, with 10 remedies. Therefore, the complete work comprised 61 medicines (besides magnet), 39 of which were new, while the remaining 22 were extended studies of medicines already published in *Fragmenta*. For this project, Hahnemann had the assistance of 37 experimental subjects/disciples (3 of whom manifested symptoms of their own diseases in all the remedies they tested), with very few data on the doses and mode of administration of the drugs.³⁹

Between 1822 and 1827, Hahnemann published the second and extended edition of *Materia Medica Pura*, also in 6 volumes comprising the same pathogenetic studies as the first edition and 3 new ones that were included in the last volume. According to Hughes' analysis,³⁹ there is a significant increase in the number of symptoms listed in the first volume, arising from trials on healthy individuals (whereas the first edition only listed “observations by others”). Moreover, retrials are more frequent for the drugs described in the first 4 volumes, since beginning 1821, after the move to Köthen and having Hahnemann

³⁴ Hahnemann S. The medicine of experience. In: Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).

³⁵ Wettemann M. Hahnemann's use of 'Fragmenta de viribus medicamentorum' in his early medical practice: analysis based on a patient file. *Med Ges Ghesch.* 2001; 20:221-30.

³⁶ Hahnemann S. The medicine of experience. In: Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).

³⁷ Hahnemann S. *Reine Arzneimittellehre* (German Edn.). Scholarly Publishing Office, University of Michigan Library, 1830. 472p.

³⁸ Hahnemann S. *Materia Medica Pura*. New Delhi: B Jain Publishers; 1994 (Reprint edition). 2v.

³⁹ Hughes R. A manual of pharmacodynamics. 6th Edn. New Delhi: B Jain Publishers; 1980 (Second reprint edition). Lecture II.

Introduction

reached his eighth decade of life, he was physically distant from the experimental subjects/disciples and also too old to continue his self-experiments. In this context, it is worth to remind that “observations by others” (namely, reports of poisonings in healthy individuals and therapeutic overdoses in the ill) represent a large fraction of most pathogenetic studies in *Materia Medica Pura*; as a fact, only 13 remedies lack such kind of data.

Still in Köthen, Hahnemann published between 1828 and 1830 the 4 volumes of the first edition of *Chronic Diseases*,⁴⁰ which introduced 17 new and 5 extended pathogenetic studies of remedies already published in *Materia Medica Pura*. With the only exception of *Kalium carbonicum* and *Natrum muriaticum* - which were tested in potentiated doses (30cH) and in (2 and 3, respectively) healthy individuals - the remainder of medicines were tested in diversified potencies (e.g. “small portions of a grain”; 2nd and 3rd trituration; 6th and 30th potency) and on individuals suffering from chronic diseases.³⁹

The second edition of *Chronic Diseases*, published between 1830 and 1835, added 25 pathogenetic studies (13 new and 12 already published in *Materia Medica Pura* and extended) to the 22 listed in the first edition. In both editions, the pathogenetic manifestations listed are adverse and side effects of drugs prescribed to patients suffering from chronic diseases, as Hughes stated explicitly:

“[...] Hahnemann’s own additions to the second issue of his work must be of the same character as his contributions to the first, *i.e.*, they must be collateral effects of the drugs observed on the patients to whom he gave them”.⁴¹

Just as there are countless pathogenetic manifestations derived from the testing of drugs in ponderal doses and/or on ill individuals in the works on materia medica written by Hahnemann, later authors also published new studies or additions to previous pathogenetic trials following the same procedure, among which: C. G. C. Hartlaub and C. F. Trinks (*Reine Arzneimittellehre*, 1828-1831, Germany), George H. G. Jahr (*Manual of Homeopathic Medicines*, 1835, Germany), Edwin M. Hale (*New Remedies*, 1867-1873, USA), Timothy F. Allen (*The Encyclopedia of Pure Materia Medica*, 1874-1879, USA).^{41,42}

⁴⁰ Hahnemann S. The chronic diseases: their peculiar nature and their homoeopathic cure (Translated by Robert E. Dudgeon). New Delhi: B Jain Publishers; 1983. 2v.

⁴¹ Hughes R. A manual of pharmacodynamics. 6th Edn. New Delhi: B Jain Publishers; 1980 (Second reprint edition). Lecture II.

⁴² Dudgeon RE. Lectures on the theory and practice of homoeopathy. New Delhi: B Jain Publishers; 1982 (Reprint edition). Lectures VII e XII.

Adverse events as pathogenetic manifestations of modern drugs

Adverse events (AE) or reactions (AR) to drugs are defined by the *World Health Organization (WHO)*⁴³ as “any response to a drug which is noxious and unintended, and which occurs at doses normally used in man for the prophylaxis, diagnosis, or therapy of disease, or for the modification of physiological function”. According to the *Guideline of Good Clinical Practice of European Medicines Agency*,⁴⁴ any research involving human beings must comply with definite scientific and ethical rulings,⁴⁵ in order to ensure the safety, protection and well-being of the participants. Surveillance, classification and notification of adverse effects, thus, are a mandatory requirement in protocols of research of new drugs.⁴⁶

During the study of a new drug (phases I to IV studies),⁴⁷ besides the expected therapeutic effect, also adverse effects appear (adverse side effects), which can be classified according to criteria such as predictability, frequency, intensity, causality and severity.⁴⁸ For the purposes of the present study, namely to assimilate the adverse side effects of modern drugs to pathogenetic effects (new symptoms) of such drugs on the state of health of human beings, the criteria that make evident this relationship are *predictability, frequency and causality* (Table 1).

According to the criterion of *predictability*, “predictable” adverse effects are the ones that are already described in the literature (drug monographs); conversely, the “unpredictable” ones have not yet been reported. In the present study, it was used the adverse side effects described in drug monographs (*The United States Pharmacopeia Dispensing Information - USP DI, 2004*),⁴⁹ therefore they are all predictable and are likely to reappear in future trials.

⁴³ World Health Organization (WHO). The Uppsala Monitoring Centre. The importance of pharmacovigilance. Safety monitoring of medicinal products. 2002. Available at: <http://apps.who.int/medicinedocs/pdf/s4893e/s4893e.pdf>

⁴⁴ European Medicines Agency. Guideline for good clinical practice. London; 2002. Available at: <http://www.ema.europa.eu/pdfs/human/ich/013595en.pdf>

⁴⁵ World Health Organization (WHO). Council for International Organizations of Medical Sciences. International ethical guidelines for biomedical research involving human subjects. Geneva; 2002. Available at: http://www.cioms.ch/publications/guidelines/guidelines_nov_2002_blurb.htm

⁴⁶ World Health Organization (WHO). Guidelines for good clinical practice (GCP) for trials on pharmaceutical products. WHO Technical Report Series, No. 850, 1995; Annex 3. Available at: <http://apps.who.int/medicinedocs/pdf/whozip13e/whozip13e.pdf>

⁴⁷ United States. Code of Federal Regulations. 21 CFR. Food and drugs. 312 Investigational new drug application. Washington; 2003. Available at: <http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/cfrsearch.cfm?cfrpart=312>

⁴⁸ Marodin G, Goldim JR. Confusions and ambiguities in the classification of adverse events in the clinical research. *Rev Esc Enferm USP*. 2009; 43(3): 690-696. Available at: http://www.scielo.br/pdf/reeusp/v43n3/en_a27v43n3.pdf

⁴⁹ The United States Pharmacopeial Convention. The United States Pharmacopeia Dispensing Information. Easton: Mack Printing Co. 2004.

Introduction

In turn, “predictable” adverse effect can be further classified according to their *frequency* or *incidence of expression* (Council for International Organizations of Medical Sciences - *CIOMS*),⁵⁰ as: (1) “very common”: frequency higher than or equal to 10.0%; (2) “common” or “frequent”: higher than or equal to 1.0% and lower than 10.0%; (3) “uncommon” or “infrequent”: higher than or equal to 0.1% and lower than 1.0%; (4) “rare”: higher than or equal to 0.01% and lower than 0.1%; and (5) “very rare”: lower than 0.01%.

Table 1. Classification of adverse events

Adverse events		
Predictability	Frequency	Causality
Predictable Already reported in other studies	Very rare (< 0.01%)	Defined
	Rare ($\geq 0.01\%$ and < 0.1%)	Probable
Unpredictable Unknown (uncertainty)	Uncommon ($\geq 0.1\%$ and < 1%)	Possible
	Common ($\geq 1\%$ and < 10%)	Unlikely or unrelated
	Very common ($\geq 10\%$)	
	Not quantified (chance)	

The drug monographs used in the present study (*USP DI*)⁵¹ classify the adverse/side effects of drugs according to their frequency in 3 groups, which however are closely related to *CIOMS*’ (and that, indeed, it is described for some drugs): (1) “more frequent”: higher than or equal to 4.0%; (2) “less frequent”: higher than or equal to 1.0% and lower than 4.0%; and (3) “rare”: lower than 1.0. Both *CIOMS* and *USP DI* classifications can be correlated (Table 2).

Table 2. Frequency of adverse events - Comparison between classifications

Frequency of adverse events	
Classification in <i>USP DI</i>	Classification in <i>CIOMS</i>
Incidence more frequent ($\geq 4\%$)	Very common ($\geq 10\%$)
	Common ($\geq 1\%$ and < 10%)
Incidence less frequent ($\geq 1\%$ and < 4%)	Common ($\geq 1\%$ and < 10%)
Incidence rare (< 1%)	Uncommon ($\geq 0.1\%$ and < 1%)
	Rare ($\geq 0.01\%$ and < 0.1%)
	Very rare (< 0.01%)

⁵⁰ World Health Organization (WHO). Council for International Organizations of Medical Sciences. Guidelines for preparing core clinical safety information on drug from CIOMS Working Group III. Geneva; 1995. Available at: <http://www.who-umc.org/DynPage.aspx?id=22684>

⁵¹ The United States Pharmacopeial Convention. The United States Pharmacopeia Dispensing Information. Easton: Mack Printing Co. 2004.

Introduction

It is worth to remind here that before any new drug can be approved and marketed it must be subjected to phases I to III studies, where their adverse events are observed in thousands of individuals. Phase IV studies conversely refer to the surveillance and vigilance of the effects of a drug after it entered the market, which widens the scope of observation to tens of thousands of individuals and also on the long run. The results are incorporated then into the drug monographs, which are periodically updated (*USP DI*). In this way, the adverse events used in the present study as pathogenetic manifestations (new symptoms) of drugs were observed in the lowest frequencies (about 1.0%) in hundreds of individuals, a fact that strengthens the validity of the present proposal.

On the other hand, since modern therapeutic plans prescribe successive doses of drugs along several days, the adverse events correspondingly described represent “the various morbid states that this medicine is capable of producing in a general manner, but not in their order of succession of symptoms or duration of the action” (*Organon*, paragraphs 131, 132).

Regarding the aspect of *causality*, according to the *WHO*,^{52,53} an adverse event is related to a drug according to the following categories: “defined”, “probable”, “possible”, “improbable”, “conditional” and “unclassifiable”, depending on the degree of certainty of the corresponding interaction. By definition, adverse events whose causality is rated as “defined” or “probable” exhibit temporal sequence (i.e., there is a temporal connection between the administration of the drug and the appearance of the adverse event); typical reaction; they disappear when the drug is discontinued; and *cannot be explained out of the underlying disease or other therapeutic means*

The causal link between a drug and an adverse event (*risk evaluation*) is retrospectively established as of cause-effect. “Predictable” and “quantified” (i.e. determined frequency) have “probable causality”.⁵³ For this reason, the adverse side effects used in the present study (*USP DI*) have evident causal relation to the corresponding drugs (*predicted risk*) and thus “are new symptoms that belong to the drug” (*Organon*, paragraph 142).

⁵² World Health Organization (WHO). The Uppsala Monitoring Centre. Safety monitoring of medicinal products. Guidelines for setting up and running a Pharmacovigilance Centre. 2000. Available at: <http://www.who-umc.org/graphics/4807.pdf>

⁵³ Marodin G, Goldim JR. Confusions and ambiguities in the classification of adverse events in the clinical research. *Rev Esc Enferm USP*. 2009; 43(3): 690-696. Available at: http://www.scielo.br/pdf/reeusp/v43n3/en_a27v43n3.pdf

Use of modern drugs according to the principle of similitude

Following the pattern of traditional homeopathy, this study proposes to employ modern drugs according to the principle of therapeutic similitude, stimulating the healing rebound effect (vital reaction) of the organism through the administration of substances (in ponderal or infinitesimal doses) that caused similar symptoms in healthy human.

Although initially cited, is worth emphasizing that the *pathogenetic effects* (*primary actions*) of classical homeopathic medicines correspond to the *therapeutic, adverse and side effects* of conventional drugs, which should be similar to totality of the symptoms of the patient to stimulate the curative vital reaction (curative rebound effect) according to the principle of therapeutic similitude

To make this proposal operative, a *Homeopathic Materia Medica of Modern Drugs (HMMMD)* was elaborated, where the therapeutic, adverse and side effects of drugs (*USP DI*) were grouped following the structure of the traditional homeopathic materia medica, while giving particular value to the frequency of the symptoms observed during the phases of study of the drugs.

In order to facilitate the selection of the individualized remedy (i.e., similar to the totality of symptoms of the patient), and thus the clinical application of the present proposal, at a later stage it was also elaborated a *Homeopathic Repertory of Modern Drugs (HRMD)*, where symptoms and remedies are arranged as in the traditional homeopathic repertories.

Homeopathic Materia Medica of Modern Drugs (HMMMD)

In principle, to elaborate a *HMMMD*, any pharmacological compendium containing the results of the clinical studies of conventional drugs (drug monographs) can be used as a source, provided it is reliable and does not exhibit conflict of interest with the pharmaceutical industry. Following these requirements, for the present study it was initially chosen *The United States Pharmacopeia Dispensing Information (USP DI, 2004)*,⁵⁴ although at a later stage it might be complemented with other reference works.

The first stage of analysis of the drug monographs focused on the following items: “name of the drug”, “commercial name”, “category” (drug classes), “conventional indications”, and “adverse/side effects” (“more frequent”, “less frequent” and “rare”; “overdose”).

Then, the resulting data were systematized according to the traditional structure of the homeopathic materia medica. The pathogenetic symptoms or primary effects (i.e., therapeutic, adverse and side effects) of each drug were distributed along the following

⁵⁴ The United States Pharmacopeial Convention. The United States Pharmacopeia Dispensing Information. Easton: Mack Printing Co. 2004.

Introduction

chapters: Mind; Vertigo; Head; Eye; Vision; Ear; Hearing; Nose; Face; Mouth; Teeth; Throat; External Throat; Stomach; Abdomen; Rectum; Stool; Bladder; Kidneys; Prostate Gland; Urethra; Urine; Genitalia Male; Genitalia Female; Larynx and Trachea; Language, Conversation and Voice; Respiration; Cough; Expectoration; Chest; Back; Extremities; Nails; Sleep; Dreams; Chill; Fever; Perspiration; Skin; and Generalities. A new chapter was added to the traditional ones, comprising the alterations in “Diagnostic Tests”.

Also keeping in with the homeopathic tradition, as well as complying with the classification of adverse events mentioned above, a score was given to the frequency of incidence of the pathogenetic effects of drugs (adverse events), represented in the text of the *HMMMD* by different “styles of fonts”. In this regard, it must be mentioned that the therapeutic effects of drugs (“conventional indications”) received the highest scores since they are virtually observed in most patients. (Table 3)

Table 3. Description of symptoms (adverse events) in the text

Description of symptoms in the text		
Frequency of incidence	Score	Font style
Very common (therapeutic effects)	5 points	<i>Bold italic</i>
More frequent (≥ 4%)	4 points	Bold
Less frequent (≥ 1% and < 4%)	3 points	<u><i>Italic underline</i></u>
Rare (< 1%)	2 points	<i>Italic</i>
Overdose	1 point	Normal

Homeopathic Repertory of Modern Drugs (HRMD)

The pathogenetic symptoms described in the *HMMMD* were systematized following the traditional pattern of the homeopathic repertories. Thus, all drugs that awakened a same symptom were grouped together and mentioned by its corresponding “abbreviation”. The “styles of font” used to write the abbreviated name of each remedy corresponds to the score and code used in the *HMMMD* (Table 3).

As it was mentioned above, the symptoms composing syndromes (clinical diagnoses) were separated and listed in the corresponding chapters of the *HRMD*, in order to facilitate a more accurate individualization of each case.

The *HRMD* also keeps the traditional hierarchical structure of the homeopathic repertories regarding the description of symptoms and their modalities. This is to say, the pathogenetic manifestations were distributed along “rubrics”, “sub-rubrics”, etc. Also seeking to facilitate the search of the most accurate symptom, all chapters include “cross-references” between similar pathogenetic manifestations.

Benefits and limitations of the proposal

Following in the steps of Aristotelian deductive logic that Hahnemann used to ground homeopathic treatment, the author of this proposal has been working for the last thirteen years to ground the principle of therapeutic similitude on the rebound effect of modern drugs through studies of clinical and experimental pharmacology. Since it exhibits properties similar to the vital reaction adduced by the homeopathic model, this paradoxical reaction (rebound effect) of the organism can be used for healing purposes provided it is administered to patients drugs that caused similar symptoms in other (healthy or ill) individuals.

Although ideally, pathogenetic trials ought to be carried out with potentiated medicines on healthy individuals to avoid confounding the true pathogenetic effects of drugs and the symptoms of disease, the traditional homeopathic materia medica comprises symptoms and signs observed after testing of drugs on healthy and ill individuals with either ponderal or infinitesimal doses. In this way, it contains the picture of the artificial morbid states that allow for the application of therapeutic similitude.

The aspects of predictability, frequency and causality of adverse events contemplated in the clinical research of new drugs (phases I to IV studies) and described in the drug monographs show that they are true pathogenetic manifestations (new symptoms) of these drugs. This fact gives further support to their use according to the principle of therapeutic similitude.

Since unfortunately, the notification of the adverse events of modern drugs through the standard forms provided by pharmacovigilance offices do not require a thorough description of their modalities,⁵⁵ the peculiarities of symptoms (*idiosyncrasies*) usual in the homeopathic traditional pathogenetic descriptions lack, i.e. the singular features required to individualize homeopathic remedies (*Organon*, paragraphs 133, 139,140). The fact that conventional drugs are tested in their “crude state” (non-potentiated doses) also conspires to limit the full expression of “their wealth of hidden powers”.

On the other hand, these drugs showed *high pathogenetic power* when administered in therapeutic doses, making their effects appear in hundreds or thousands of individuals. This fact warrants the validity of their homeopathic use in infinitesimal doses provided they are selected according to the *totality of symptoms* of the patient, minimizing the deficiency of idiosyncratic symptoms.

Therefore, the present proposal makes it possible to use other drugs to relieve clinical complaints ordinarily treated by homeopathy, as well as it opens the path for new

⁵⁵ United States. Food and Drug Administration. Med Watch: The FDA safety information and adverse event reporting program. Form FDA 3500A – Mandatory reporting. Washington; 2009. Available at: <http://www.fda.gov/downloads/Safety/MedWatch/HowToReport/DownloadForms/UCM082728.pdf>

Introduction

applications of therapeutic similitude to encompass modern signs, symptoms and complex syndromes.

Due to this lack of descriptions of idiosyncratic aspects (characteristic symptoms and modalized) in most pathogenetic manifestations of modern drugs, which hinders their immediate use for the selection of an individualized remedy, it is suggested an *initial clinical approach* (selection of pathognomonic signs and symptoms, pathological or syndromic diagnosis, etc.) encompassing the full set of manifestations of the individual disease (*totality of symptoms*), despite their poor modalization, in order to choose the specific means of cure.

As a result of the high pathogenetic power of modern drugs it is expected that infinitesimal doses will be sufficient to awaken the healing vital reaction of the organism. For this reason, it is suggested to start treatment with potency 6cH, and adjust the repetition of doses to the individual pattern of susceptibility of each patient. In this way it will be possible to evaluate the therapeutic results of these remedies in intermediate concentrations and to relate them to the pathogenetic effects of the ponderal doses while avoiding aggravation and intense adverse events.

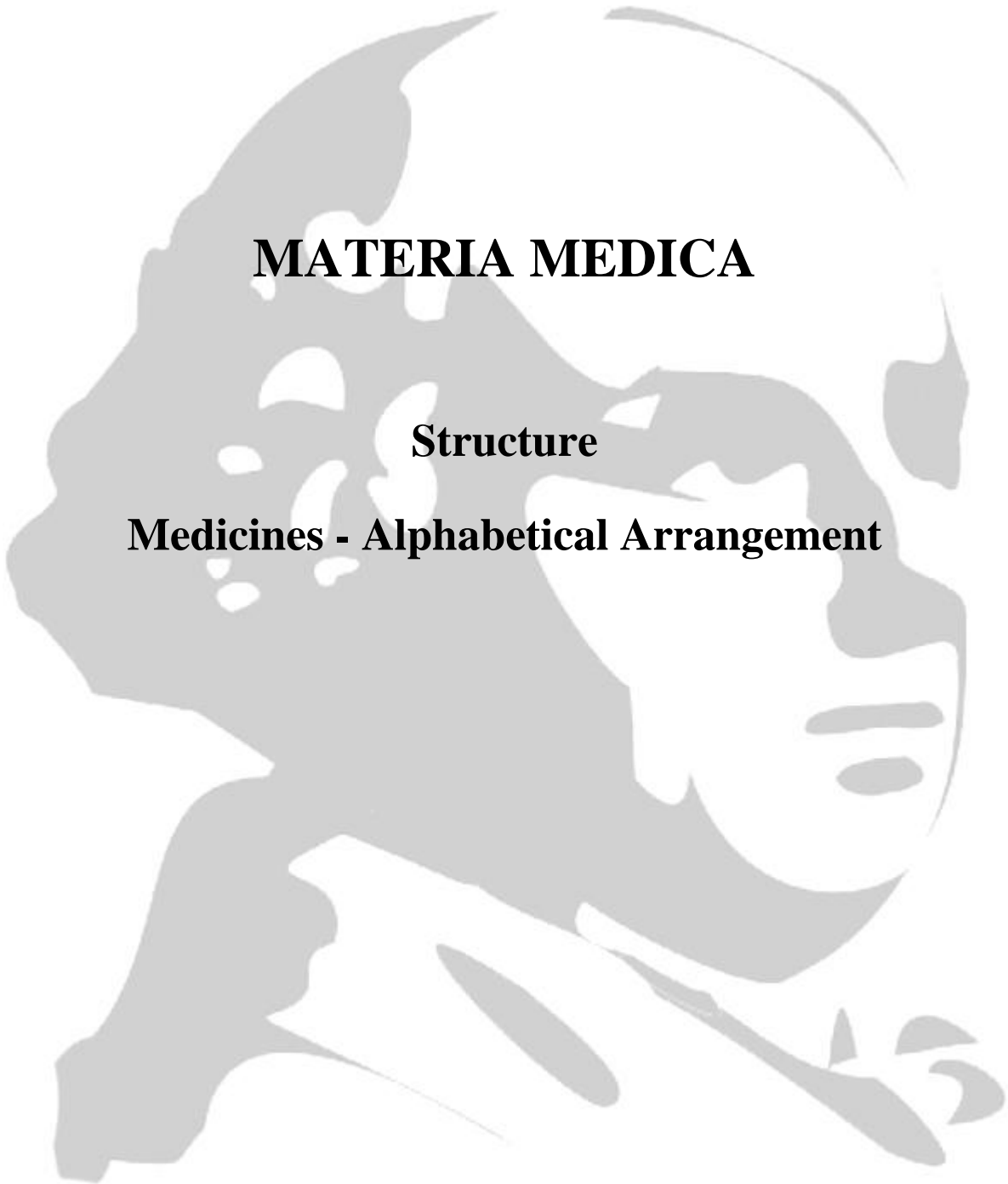
However, the actual validation of the method here proposed requires the joint collaboration of homeopathic professionals at different levels: physicians to prescribe the remedies and then report the results (clinical cases), pharmacists to prepare the potentiated remedies, and researchers to design experimental protocols. If such collaborative enterprise could be accomplished, the initial proposal would be discussed and reviewed, extended and then translated into different languages.

Homeopathic Materia Medica of Modern Drugs

MATERIA MEDICA

Structure

Medicines - Alphabetical Arrangement



Structure

Generally, to elaborate a *Homeopathic Materia Medica of Modern Drugs* (HMMMD), any pharmacological compendium containing the results of the clinical studies of conventional drugs (drug monographs) can be used as a data source, provided it is reliable and does not exhibit conflict of interest with the pharmaceutical industry.

Following these requirements, in the present study it was initially chosen *The United States Pharmacopeia Dispensing Information (USP DI, 2004)*,¹ although at a later stage it might be complemented with other reference works.

The first stage of analysis of the drug monographs focused on the following items: “**name of the drug**”, “**commercial name**”, “**category**” (drug classes), “**conventional indications**”, and “**adverse/side effects**”.

The resulting “**primary actions or pathogenetic symptoms of the drugs**” were systematized according to the traditional structure of the classical homeopathic materia medica. The primary or direct effects (i.e., therapeutic, adverse and side effects) of each drug were distributed along the following chapters: **Mind; Vertigo; Head; Eye; Vision; Ear; Hearing; Nose; Face; Mouth; Teeth; Throat; External Throat; Stomach; Abdomen; Rectum; Stool; Bladder; Kidneys; Prostate Gland; Urethra; Urine; Genitalia Male; Genitalia Female; Larynx and Trachea; Language, Conversation and Voice; Respiration; Cough; Expectoration; Chest; Back; Extremities; Nails; Sleep; Dreams; Chill; Fever; Perspiration; Skin; and Generalities.**

A new chapter was added to the traditional ones, comprising the alterations caused by modern drugs in diagnostic tests (**Diagnostic Tests**).

At the end of the text of each drug, the “**secondary actions or rebound effects of the drugs**” were also mentioned, evidencing the phenomena described in the first volume of this work (*Scientific Basis of the Principle of Similitude in Modern Pharmacology*).

Also keeping in with the homeopathic tradition, as well as complying with the classification of direct or primary actions of the drugs, a score was given to the “**frequency of incidence**” of the pathogenetic effects of the drugs (therapeutic, adverse or side effects), represented in the text of the HMMMD by different “**styles of font**”.

In this regard, it must be mentioned that the *therapeutic effects of drugs* (“conventional indications”) received the highest scores (5 points) since they are virtually observed in most patients.

¹ The United States Pharmacopeial Convention. The United States Pharmacopeia Dispensing Information. Easton: Mack Printing Co. 2004.

Description of pathogenetic symptoms of modern drugs in the HMMMD

Description of symptoms in the text		
Frequency of incidence	Score	Font style
Very common (therapeutic effects)	5 points	<i>Bold italic</i>
More frequent ($\geq 4\%$)	4 points	Bold
Less frequent ($\geq 1\%$ and $< 4\%$)	3 points	<u><i>Italic underline</i></u>
Rare ($< 1\%$)	2 points	<i>Italic</i>
Overdose	1 point	Normal

Medicines - Alphabetical Arrangement

The homeopathic pathogenetic study of all 1,251 medicines described in *The United States Pharmacopeia Dispensing Information (USP DI, 2004)*² is available in the **HMMMD** according to the alphabetical arrangement of the drug name:

- **Letter A** [Abacavir / Aztreonam]
- **Letter B** [Bacillus Calmette-Guérin (BCG) / Butorphanol]
- **Letter C** [Cabergoline / Cytarabine]
- **Letter D** [Dacarbazine / Dyphylline]
- **Letter E** [Econazole / Ezetimibe and Simvastatin]
- **Letter F** [Factor IX / Fusidic acid]
- **Letter G** [Gabapentin / Guanfacine]
- **Letter H** [Haemophilus b Conjugate Vaccine / Hydroxyurea]
- **Letter I** [Ibandronate / Ivermectin]
- **Letter J** [Japanese Encephalitis Virus Vaccine]
- **Letter K** [Kanamycin / Krypton Kr 81m]
- **Letter L** [L-Tryptophan / Lyme Disease Vaccine]
- **Letter M** [Mafenide / Mycophenolate]
- **Letter N** [Nabilone / Nystatin and Triamcinolone]
- **Letter O** [Octreotide / Oxytocin]
- **Letter P** [Paclitaxel / Pyrvinium]
- **Letter Q** [Quetiapine / Quinupristin and Dalfopristin]
- **Letter R** [Rabeprazole / Rubidium Rb 82]
- **Letter S** [Sacrosidase / Sympathomimetic Agents]
- **Letter T** [Tacrine / Typhoid Vi Polysaccharide Vaccine]
- **Letter U** [Undecylenic Acid / Ursodiol]
- **Letter V** [Vaccinia Immune Globulin Intravenous / Voriconazole]
- **Letter W** [Warfarin / Whole-cell DTP]
- **Letter X** [Xenon Xe 127 / Xylometazoline]
- **Letter Y** [Yellow Fever Vaccine / Yohimbine]
- **Letter Z** [Zafirlukast / Zopiclone]

² The United States Pharmacopeial Convention. The United States Pharmacopeia Dispensing Information. Easton: Mack Printing Co. 2004.

Abacavir (Systemic)

Commercial name(s): *Ziagen*.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus (HIV) infection (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

STOMACH: loss of appetite; nausea or vomiting.

ABDOMEN: **hepatic failure**; *hepatic steatosis* (dark urine; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); *hepatotoxicity, including lactic acidosis* (abdominal discomfort; nausea; decreased appetite; general feeling of discomfort; diarrhea; fast, shallow breathing; muscle pain or cramping; shortness of breath; sleepiness; unusual tiredness or weakness); *pancreatitis* (abdominal pain and distention; fever; nausea; vomiting).

RECTUM: diarrhea.

KIDNEYS: renal failure.

RESPIRATION: adult respiratory distress syndrome; respiratory failure.

EXTREMITIES: fatigue.

SLEEP: *insomnia* (trouble in sleeping).

SKIN: **skin rash** (usually maculopapular or urticarial); *toxic epidermal necrolysis* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red, irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

GENERALITIES: **adult respiratory distress syndrome; anaphylaxis; death; fatigue; hypersensitivity reaction** (abdominal or stomach pain; cough; diarrhea; difficult or labored breathing; fever; headache; joint or muscle pain; nausea; numbness or tingling of face, hands, or feet; redness and soreness of eyes; skin rash; shortness of breath; sore throat; sores in mouth; swelling of feet or lower legs; vomiting; unusual feeling of discomfort or illness; unusual tiredness); **hypotension; lymphadenopathy; mucous membrane lesions; accumulation/redistribution of body fat** (breast enlargement; buffalo hump; central obesity; facial wasting; peripheral wasting); *erythema multiforme; hepatic steatosis* (dark urine; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); *hepatotoxicity, including lactic acidosis* (abdominal discomfort; nausea; decreased appetite; general feeling of discomfort; diarrhea; fast, shallow breathing; muscle pain or cramping; shortness of breath; sleepiness; unusual tiredness or weakness); *pancreatitis* (abdominal pain and distention; fever; nausea; vomiting); *Stevens-Johnson syndrome; toxic epidermal necrolysis* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red, irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

DIAGNOSTIC TESTS: **elevated hepatic function test, creatine kinase, or creatinine values; lymphopenia; hepatic steatosis.**

Abacavir and Lamivudine (Systemic)

Commercial name(s): *Epzicom*.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus infection (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety** (fear, nervousness).

VERTIGO: **dizziness**; **vertigo** (dizziness or lightheadedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: **headache**; **migraine** (headache, severe and throbbing); **alopecia** (hair loss; thinning of hair).

MOUTH: **stomatitis** (swelling or inflammation of the mouth).

STOMACH: **abdominal pain** (stomach pain); **gastritis** (burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion); **nausea**.

ABDOMEN: **abdominal pain** (stomach pain); **hepatitis B, exacerbation** (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); **pancreatitis** (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); **splenomegaly** (abdominal pain; feeling of fullness).

RECTUM: **diarrhea**.

RESPIRATION: **wheezing or abnormal breathing sounds**.

EXTREMITIES: **peripheral neuropathy** (burning, numbness, tingling, or painful sensations weakness in arms, hands, legs, or feet; unsteadiness or awkwardness); **rhabdomyolysis** (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); **muscle weakness**.

SLEEP: **insomnia** (sleeplessness; trouble sleeping; unable to sleep).

DREAMS: **abnormal dreams**.

FEVER: **pyrexia** (fever).

SKIN: **rash, mild**; **toxic epidermal necrolysis** (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); **urticaria** (hives or welts; itching; redness of skin; skin rash); **alopecia** (hair loss; thinning of hair).

GENERALITIES: **anaphylaxis** (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); **anemia** (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); **anemia, aplastic** (chest pain; chills; cough; fever; headache; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen or painful glands; tightness in chest, unusual bleeding or bruising; unusual tiredness or weakness; wheezing); **erythema multiforme** (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); **hepatic steatosis** (dark urine; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); **hepatitis B, exacerbation** (dark urine; general tiredness and weakness; light-

colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); **hypersensitivity** (fast heartbeat; fever; hives; itching; irritation; hoarseness; joint pain, stiffness, or swelling; rash; redness of skin; shortness of breath; swelling of eyelids, face, lips, hands, or feet; tightness in chest; troubled breathing or swallowing; wheezing); **lactic acidosis** (abdominal discomfort; decreased appetite; diarrhea; fast, shallow breathing; general feeling of discomfort; muscle pain or cramping; nausea; shortness of breath; sleepiness; unusual tiredness or weakness); **lymphadenopathy** (swollen, painful, or tender lymph glands in neck, armpit, or groin); **malaise and/or fatigue** (general feeling of discomfort or illness; unusual tiredness or weakness); **pancreatitis** (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); **peripheral neuropathy** (burning, numbness, tingling, or painful sensations weakness in arms, hands, legs, or feet; unsteadiness or awkwardness); **rhabdomyolysis** (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); **seizure** (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); **Stevens-Johnson syndrome** (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); **toxic epidermal necrolysis** (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); **alopecia** (hair loss; thinning of hair); **hyperglycemia** (abdominal pain; blurred vision; dry mouth; fatigue; flushed; dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); **paresthesias** (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); **redistribution/accumulation of body fat**; **weakness**.
DIAGNOSTIC TESTS: **anemia**; **anemia, aplastic**; **creatine phosphokinase (CPK) elevations**; **hyperglycemia**.

Abacavir, Lamivudine, and Zidovudine (Systemic)

Commercial name(s): *Trizivir*.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus type 1 (HIV-1) infection (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

STOMACH: anorexia (loss of appetite); **nausea**; **vomiting**.

ABDOMEN: **abdominal cramps or pain**; **hepatic failure**; **hepatotoxicity, including lactic acidosis** (abdominal pain, severe; fever; nausea; skin rash; unusual tiredness or weakness; vomiting; yellow eyes or skin) - more frequent in women; **pancreatitis** (abdominal pain, severe; fever; nausea; vomiting).

RECTUM: diarrhea.

KIDNEYS: renal failure.

COUGH: cough.

EXTREMITIES: arthralgia (pain in joints); **musculoskeletal pain; myalgia** (pain in muscles); myopathy or myositis (muscle tenderness and weakness) - associated with prolonged use of Zidovudine.

SLEEP: insomnia and other sleep disorders (sleeplessness; trouble sleeping).

CHILL: fever and/or chills.

FEVER: fever and/or chills.

SKIN: skin rash (usually maculopapular or urticarial).

GENERALITIES: malaise and/or fatigue (general feeling of discomfort or illness; unusual tiredness or weakness); **myalgia** (pain in muscles); **neutropenia** (chills; fever; sore throat); anaphylactic-like reaction; anemia (pale skin; unusual tiredness or weakness); death; hepatotoxicity, including lactic acidosis (abdominal pain, severe; fever; nausea; skin rash; unusual tiredness or weakness; vomiting; yellow eyes or skin) - more frequent in women; hypersensitivity reaction (abdominal pain; cough; diarrhea; fever; headache; nausea; numbness or tingling of face, feet, or hands; pain in joints; pain in muscles; shortness of breath; skin rash; sore throat; swelling of feet or lower legs; unusual feeling of discomfort or illness; unusual tiredness or weakness; vomiting) - incidence approximately 5% associated with Abacavir; hypotension; lymphadenopathy; mucous membrane lesions; myopathy or myositis (muscle tenderness and weakness) - associated with prolonged use of Zidovudine; pancreatitis (abdominal pain, severe; fever; nausea; vomiting); thrombocytopenia (black, tarry stools; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: neutropenia; anemia; elevated hepatic function test, creatine kinase, or creatinine values; lymphopenia; thrombocytopenia.

Abarelix (Systemic)

Commercial name(s): Plenaxis.

Category: Antineoplastic.

Conventional indications: Carcinoma, prostate.

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

STOMACH: nausea.

RECTUM: constipation (difficulty having a bowel movement [stool]); **diarrhea.**

BLADDER: dysuria (difficult or painful urination; burning while urinating); **micturition frequency** (trouble in holding or releasing urine; painful urination); **urinary retention** (decrease in urine volume; decrease in frequency of urination; difficulty in passing urine [dribbling]; painful urination); **urinary tract infection** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: urinary tract infection (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

RESPIRATION: upper respiratory tract infection (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

CHEST: breast enlargement - pharmacological consequence of androgen deprivation; **breast pain/nipple enlargement** - pharmacological consequence of androgen deprivation.

BACK: pain.

EXTREMITIES: edema, peripheral (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss).

SLEEP: sleep disturbance (trouble in sleeping) - pharmacological consequence of androgen deprivation.

SKIN: pruritus (itching skin); **urticaria** (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: edema, peripheral (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); **fatigue** (unusual tiredness or weakness); **hot flushes** (feeling of warmth; redness of the face, neck, arms and occasionally upper chest; sudden sweating) - pharmacological consequence of androgen deprivation; **pain; upper respiratory tract infection** (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **allergic reactions, severe** (fainting or loss of consciousness; fast or irregular breathing; swelling of eyes or eyelids; trouble in breathing; tightness in chest and/or wheezing; skin rash; itching) - immediate onset; **hypotension and syncope**.

Abciximab (Systemic)

Commercial name(s): *ReoPro; ReoPro*.

Category: Antithrombotic; monoclonal antibody (antithrombotic); platelet aggregation inhibitor.

Conventional indications: Thrombosis, percutaneous coronary intervention-related (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: abnormal thinking (confusion; delusions; dementia); **anxiety** (fear; nervousness); **confusion** (mood or mental changes).

VERTIGO: dizziness.

HEAD: headache; intracranial hemorrhage.

VISION: abnormal vision (changes in vision).

STOMACH: gastrointestinal bleeding; dyspepsia (acid or sour stomach; belching; heartburn; indigestion or stomach discomfort, upset, or pain); **nausea; vomiting.**

ABDOMEN: gastrointestinal bleeding; retroperitoneal bleeding.

RECTUM: gastrointestinal bleeding.

BLADDER: genitourinary bleeding.

GENTALIA MALE: genitourinary bleeding.

GENITALIA FEMALE: genitourinary bleeding.

CHEST: pain; *bradycardia* (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); *pleural effusion or pleurisy* (chest pain; shortness of breath); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

BACK: pain.

EXTREMITIES: edema, peripheral (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss).

GENERALITIES: bleeding, major (intracranial hemorrhage or a decrease in hemoglobin concentration by more than 5 gr/dL; retroperitoneal; gastrointestinal; genitourinary); **hypotension** (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); *hypersthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); *bradycardia* (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); *leukocytosis* (chills; cough; eye pain; fever; general feeling of illness; headache; sore throat; unusual tiredness).

DIAGNOSTIC TESTS: thrombocytopenia; anemia; leukocytosis.

Acamprosate (Systemic)

Commercial name(s): *Campral*.

Category: Alcohol-abuse deterrent.

Conventional indications: Alcoholism (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: depression (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); *anxiety* (fear; nervousness).

VERTIGO: dizziness.

MOUTH: dry mouth.

STOMACH: anorexia (loss of appetite; weight loss); *nausea*.

ABDOMEN: flatulence (bloated full feeling; excess air or gas in stomach or intestines; passing gas).

RECTUM: diarrhea.

KIDNEYS: kidney failure, acute (agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness).

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep).

SKIN: *pruritus* (itching skin).

GENERALITIES: asthenia (lack or loss of strength); *accidental injury*; *pain*; *paresthesias* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *kidney failure, acute* (agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness); hypercalcemia.

DIAGNOSTIC TESTS: hypercalcemia.

Acarbose (Systemic)

Commercial name(s): *Precose*.

Category: Antidiabetic agent.

Conventional indications: Diabetes, type 2 (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: jaundice (yellow eyes or skin).

ABDOMEN: abdominal pain; flatulence (bloated feeling or passing of gas).

RECTUM: diarrhea.

GENERALITIES: jaundice (yellow eyes or skin).

Acetaminophen (Systemic)

Commercial name(s): *Abenol; Aceta Elixir; Aceta Tablets; Acetaminophen Uniserts; Actamin; Actamin Extra; Actamin Super; Actimol Chewable Tablets; Actimol Children's Suspension; Actimol Infants' Suspension; Actimol Junior Strength Caplets; Aminofen; Aminofen Max; Anacin-3; Anacin-3 Extra Strength; Apacet Capsules; Apacet Elixir; Apacet Extra Strength Caplets; Apacet Extra Strength Tablets; Apacet Regular Strength Tablets; Apacet, Infants; Apo-Acetaminophen; Aspirin Free Anacin Maximum Strength Caplets; Aspirin Free Anacin Maximum Strength Gel Caplets; Aspirin Free Anacin Maximum Strength Tablets; Aspirin-Free Excedrin Caplets; Atasol Caplets; Atasol Drops; Atasol Forte Caplets; Atasol Forte Tablets; Atasol Oral Solution; Atasol Tablets; Banasin; Bayer Select Maximum Strength Headache Pain Relief Formula; Dapa; Dapa X-S; Datril Extra-Strength; Excedrin Caplets; Excedrin Extra Strength Caplets; Exdol; Exdol Strong; Feverall Junior Strength; Feverall Sprinkle Caps Junior Strength; Feverall Sprinkle Caps, Children's; Feverall, Children's; Feverall, Infants'; Genapap Children's Elixir; Genapap Children's Tablets; Genapap Extra Strength Caplets; Genapap Extra Strength Tablets; Genapap Regular Strength Tablets; Genapap, Infants; Genebs Extra Strength Caplets; Genebs Regular Strength Tablets; Genebs X-Tra; Liquiprin Children's Elixir; Liquiprin Infants' Drops; Neopap; Oraphen-PD; Panadol; Panadol Extra Strength; Panadol Junior Strength Caplets; Panadol Maximum Strength Caplets; Panadol Maximum Strength Tablets; Panadol, Children's; Panadol, Infants; Phenaphen Caplets; Redutemp; Robigesic; Rounox; Snaplets-FR; St. Joseph Aspirin-Free Fever Reducer for Children; Suppap-120;*

Suppap-325; Suppap-650; Tapanol Extra Strength Caplets; Tapanol Extra Strength Tablets; Temptra; Temptra Caplets; Temptra Chewable Tablets; Temptra D.S; Temptra Drops; Temptra Syrup; Temptra, Infants; Tylenol Arthritis Extended Relief; Tylenol Caplets; Tylenol Children's Chewable Tablets; Tylenol Children's Elixir; Tylenol Children's Suspension Liquid; Tylenol Drops; Tylenol Elixir; Tylenol Extra Strength Adult Liquid Pain Reliever; Tylenol Extra Strength Caplets; Tylenol Extra Strength Gelcaps; Tylenol Extra Strength Tablets; Tylenol Gelcaps; Tylenol Infants Drops; Tylenol Infants' Suspension Drops; Tylenol Junior Strength Caplets; Tylenol Junior Strength Chewable Tablets; Tylenol Regular Strength Caplets; Tylenol Regular Strength Tablets; Tylenol Tablets; Valorin; Valorin Extra.

Category: Analgesic; antipyretic.

Conventional indications: Pain (treatment); Pain, arthritic, mild (treatment); or Fever (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: gastrointestinal upset (diarrhea, loss of appetite, nausea or vomiting, stomach cramps or pain).

ABDOMEN: *hepatitis* (yellow eyes or skin); gastrointestinal upset (diarrhea, loss of appetite, nausea or vomiting, stomach cramps or pain); *hepatotoxicity* (pain, tenderness, and/or swelling in upper abdominal area).

KIDNEYS: *renal colic* (pain, severe and/or sharp, in lower back and/or side) - with prolonged use of high doses in patients with severe renal function impairment; *renal failure* (sudden decrease in amount of urine); *renal function impairment*; *uremia*.

URINE: *sterile pyuria* (cloudy urine).

PERSPIRATION: increased sweating.

FEVER: *hypothermia*.

SKIN: *dermatitis, allergic* (skin rash, hives or, itching).

GENERALITIES: *hypothermia; pain absence; agranulocytosis* (fever with or without chills; sores, ulcers or white spots on lips or in mouth; sore throat); *anemia* (unusual tiredness or weakness); *hepatitis* (yellow eyes or skin); *thrombocytopenia* (rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *uremia*.

DIAGNOSTIC TESTS: *agranulocytosis; anemia; sterile pyuria* (cloudy urine); *thrombocytopenia; uremia*.

Acetaminophen and Salicylates (Systemic)

Commercial name(s): *Excedrin Extra-Strength Caplets; Excedrin Extra-Strength Tablets; Excedrin Migraine; Gelpirin; Goody's Fast Pain Relief; Goody's Headache Powders; Rid-A-Pain Compound; Saleto; Supac; Vanquish Caplets.*

Category: Analgesic; antimigraine; antipyretic.

Conventional indications: Headache, migraine (treatment); Pain (treatment); Pain, arthritic, mild (treatment); or Fever (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: changes in behavior (in young children); coma; hepatic encephalopathy (with mental changes, confusion, agitation, or stupor).

HEAD: cerebral edema.

STOMACH: gastrointestinal bleeding.

ABDOMEN: abnormalities in liver function; gastrointestinal bleeding; hepatic encephalopathy (with mental changes, confusion, agitation, or stupor); liver damage; overt hepatic disease.

RECTUM: gastrointestinal bleeding.

KIDNEYS: *renal papillary necrosis leading to renal failure* (bloody or cloudy urine; sudden decrease in amount of urine; swelling of face, fingers, feet, or lower legs; weight gain).

URINE: ketonuria; proteinuria.

RESPIRATION: respiratory depression; fast or deep breathing (in young children).

CHEST: cardiac arrhythmias.

SLEEP: severe drowsiness (in young children).

FEVER: *hypothermia*.

GENERALITIES: *hypoglycemia; hypothermia; pain absence*; cardiac arrhythmias; coma; convulsions; hyperglycemia; hypokalemia; metabolic acidosis; tiredness (in young children).

DIAGNOSTIC TESTS: alterations in acid-base balance (especially respiratory alkalosis and metabolic acidosis); encephalographic abnormalities; hyperglycemia; hyponatremia; hypokalemia; ketonuria; metabolic acidosis; proteinuria.

Secondary Actions or Rebound Effects: cardiovascular collapse; coagulation defects; disseminated intravascular coagulation.

Acetaminophen, Sodium Bicarbonate, and Citric Acid (Systemic)

Commercial name(s): *Bromo-Seltzer*.

Category: Analgesic-antacid.

Conventional indications: Pain and upset stomach (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: hepatic encephalopathy (with mental changes, confusion, agitation, or stupor).

HEAD: cerebral edema.

STOMACH: *cramps; thirst, increased*; gastrointestinal bleeding; gastrointestinal upset (diarrhea; loss of appetite; nausea or vomiting; stomach cramps or pain)

ABDOMEN: abnormalities in liver function; gastrointestinal bleeding; gastrointestinal upset (diarrhea; loss of appetite; nausea or vomiting; stomach cramps or pain); hepatic encephalopathy (with mental changes, confusion, agitation, or stupor); hepatotoxicity (pain, tenderness, and/or swelling in upper abdominal area) - may occur 2 to 4 days after the overdose is ingested; liver damage; overt hepatic disease.

RECTUM: gastrointestinal bleeding.

KIDNEYS: renal tubular necrosis leading to renal failure (signs include bloody or cloudy urine and sudden decrease in amount of urine).

RESPIRATION: respiratory depression.

CHEST: cardiac arrhythmias.

PERSPIRATION: increased sweating.

GENERALITIES: *pain absence*; *edema* (swelling of face, fingers, ankles, feet, or lower legs; weight gain); : *hypercalcemia associated with milk-alkali syndrome* (frequent urge to urinate; continuing headache; continuing loss of appetite; nausea or vomiting; unusual tiredness or weakness); *increased blood pressure*; *metabolic alkalosis* (mood or mental changes; muscle pain or twitching; nervousness or restlessness; slow breathing; unpleasant taste; unusual tiredness or weakness) - more likely in patients with renal function impairment; cardiac arrhythmias.

DIAGNOSTIC TESTS: *hypercalcemia*; *metabolic alkalosis*.

Acetylcysteine (Inhalation)

Commercial name(s): *Mucomyst*; *Mucomyst-10*; *Mucosil*.

Category: Mucolytic; diagnostic aid (bronchoscopy).

Conventional indications: Acetylcysteine is used in current medical practice in conjunction with chest physiotherapy as a mucolytic in patients who have viscid or thickened airway mucus.

Primary Actions or Pathogenetic Symptoms

NOSE: unpleasant odor during administration, transient; *rhinorrhea* (runny nose).

FACE: stickiness on face, after nebulization using a face mask.

MOUTH: *stomatitis* (irritation or soreness of mouth).

THROAT: *irritation of throat*.

STOMACH: *nausea*; *vomiting*.

RESPIRATION: *increased airways obstruction* (difficulty in breathing; tightness in chest; wheezing) - especially in asthma patients.

EXPECTORATION: *increase in bronchial secretions*.

CHEST: *irritation of lungs*.

FEVER: *fever*.

SKIN: *clammy skin*; *sensitization* (skin rash or other irritation).

Acetylcysteine (Systemic)

Commercial name(s): *Acetadote*; *Mucomyst*; *Mucosil*; *Parvolex*.

Category: Antidote (to acetaminophen overdose).

Conventional indications: Toxicity, acetaminophen (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *abnormal thinking* (confusion; delusions; dementia).

VERTIGO: *gait disturbances* (change in walking and balance, clumsiness, or unsteadiness); *syncope* (fainting).

EYE: *pain*.

FACE: *facial erythema* (reddened face); *facial edema*.

THROAT: *throat tightness*.

STOMACH: *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); *nausea*; *vomiting*.

RESPIRATION: *bronchospastic allergic reaction* (shortness of breath, troubled breathing, tightness in chest, or wheezing); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

COUGH: *coughing*.

CHEST: *chest tightness*; *tachycardia* (fast, pounding, or irregular heartbeat or pulse).

PERSPIRATION: *sweating*.

SKIN: *rash*; *urticaria* (hives or welts; itching; redness of skin; skin rash); *dermatitis, allergic* (skin rash or hives); *pruritus* (itching skin).

GENERALITIES: **anaphylactoid reaction** (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *angioedema* (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); *vasodilation* (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or light-headedness; sweating); *hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness).

Acitretin (Systemic)

Commercial name(s): *Soriatane*.

Category: Antipsoriatic (systemic); keratinization stabilizer (systemic).

Conventional indications: Psoriasis, severe (treatment); Keratinization disorders (treatment) (Erythroderma, ichthyosiform; Ichthyosis, lamellar; Keratosis, follicularis).

Primary Actions or Pathogenetic Symptoms

MIND: *aggressive feelings* (attack, assault, force); *self-injurious behavior* (doing things to injure oneself); *suicidal thoughts* (thoughts of killing oneself).

VERTIGO: *dizziness*; vertigo (dizziness or lightheadedness; feeling of constant movement of self or surroundings, sensation of spinning).

HEAD: **alopecia** (loss of hair); **headache**; *pseudotumor cerebri* (blurred or double vision; continuing severe headache, nausea, and vomiting); *stroke* (confusion, difficulty in speaking, slow speech, inability to speak, inability to move arms, legs, or facial muscles, double vision, headache).

EYE: **difficulty in wearing contact lenses**; **scaling and peeling of eyelids**; *blepharitis*; *conjunctivitis*; *irritation*; *photophobia*; *cataracts, subcapsular* (cortical, nuclear, and

posterior); *pannus*; *recurring stye* (sore on the edge of the eyelid); *subepithelial corneal lesions* (eye pain; trouble in seeing).

VISION: *visual problems* (blurred vision; eye pain; loss of eyebrows or lashes; redness or swelling of the eyelid; redness of the eyes; sensitivity of eyes to light; watery eyes); *decreased night vision* (decreased vision after sunset and before sunrise); *subepithelial corneal lesions* (eye pain; trouble in seeing).

EAR: *ache*; **ceruminosis** (increased amount of ear wax); *otitis media* (earache; redness or swelling in ear); *otitis externa* (itchy or painful ears).

HEARING: **tinnitus** (continuing ringing or buzzing or other unexplained noise in ears; hearing loss).

NOSE: **epistaxis** (bloody nose); **mucous membranes** (dry, irritated); **rhinitis** (dry or runny nose; nosebleeds).

FACE: **cheilitis** (chapped, red, or swollen lips);

MOUTH: **dry mouth**; **gingivitis**; **stomatitis** (irritation in mouth or swollen gums; mouth ulcers); **taste perversion** (change in taste; bad, unusual or unpleasant [after] taste); **tongue disorder** (tongue irritation); *moniliasis* (sore mouth or tongue; white patches in mouth and/or on tongue).

THROAT: *pharyngitis* (coughing; hoarseness; trouble in speaking).

STOMACH: **anorexia** (loss of appetite; weight loss); **appetite increased**; **nausea**; **thirst**, **unusual**; **vomiting**; *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain).

ABDOMEN: **pain**; *hepatic function abnormal* (abdominal or stomach pain; chills; light-colored stools; dark urine; diarrhea; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *hepatitis*; *pancreatitis* (abdominal pain; darkened urine; yellowing of the skin or eyes).

RECTUM: *constipation*; *diarrhea*.

GENITALIA FEMALE: *vaginitis*, *atrophic* (itching of the vagina or genital area; pain during sexual intercourse; thick, white vaginal discharge with no odor or with a mild odor)

LARYNX AND TRACHEA: *laryngitis*.

CHEST: *breast pain*; *acute myocardial infarction* (chest pain or discomfort, pain or discomfort in arms, jaw, back or neck, shortness of breath, nausea, sweating, vomiting); *pain*.

BACK: **spinal hyperostosis** (back pain; bone or joint pain; difficulty in moving or walking; stiff, painful muscles).

EXTREMITIES: **arthralgia**; **arthritis** (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); **arthrosis** (degenerative disease of the joint); **hypertonia** (excessive muscle tone; muscle tension or tightness; muscle stiffness); **myalgia**; **spinal hyperostosis** (back pain; bone or joint pain; difficulty in moving or walking; stiff, painful muscles); **scaling and peeling of fingertips, palms, or soles of feet**; *myopathy* (muscular pain, tenderness, wasting or weakness); *peripheral ischemia* (abdominal pain; chest pain; itching of skin; numbness and tingling of fingers, toes, or face; pain in arms, legs, or lower back; pale or cold hands or feet; weakness in legs); *peripheral neuropathy* (burning, numbness, tingling, or painful sensations, weakness in arms, hands, legs, or feet, unsteadiness or awkwardness).

NAILS: *paronychia* (loosening of the fingernails; redness or soreness around fingernails); *nail fragility* (cracking fingernails, fingernails break easily).

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep).

FEVER: *fever* (elevated body temperature).

PERSPIRATION: *sweating, increased*.

SKIN: *alopecia* (loss of hair); **erythematous rash** (redness of skin); **hyperesthesia** (increased sensitivity to pain, increased sensitivity to touch, tingling in the hands and feet); **photosensitivity** (increased ability to sunburn); **pruritus** (itching skin); **skin atrophy** (thinning of skin with easy bruising); **sticky skin**; *eczema* (skin rash encrusted, scaly and oozing); *urticaria* (hives or welts; itching; redness of skin; skin rash); *verrucae*; *abnormal skin odor*; *dermatitis*; *fissuring*; *hypertrophy*; *infection*; *purpura* (small spots in skin where bleeding occurred); *psoriasiform rash* (skin irritation or rash, including rash that looks like psoriasis) (rebound effect?); *pyogenic granuloma*; *ulceration* (cracking of skin; redness of skin).

GENERALITIES: *alopecia* (loss of hair); **arthralgia**; **arthritis** (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); **arthrosis** (degenerative disease of the joint); **edema** (swelling); **flushing** (feeling of warmth redness of the face, neck, arms and occasionally, upper chest); **hyperesthesia** (increased sensitivity to pain, increased sensitivity to touch, tingling in the hands and feet); **hypertonia** (excessive muscle tone; muscle tension or tightness; muscle stiffness); **myalgia**; **osteodynia** (bone pain); *fatigue*; *herpes simplex* (burning or stinging of skin; painful cold sores or blisters on lips, nose, eyes, or genitals); *malaise* (general feeling of discomfort or illness; unusual tiredness or weakness); *acute myocardial infarction* (chest pain or discomfort, pain or discomfort in arms, jaw, back or neck, shortness of breath, nausea, sweating, vomiting); *bleeding time increased*; *hemorrhage* (bleeding gums; coughing up blood; difficulty in breathing or swallowing; dizziness; headache; increased menstrual flow; or vaginal bleeding; nosebleeds; paralysis; prolonged bleeding from cuts; red or dark brown urine; red or black, tarry stools; shortness of breath); *hepatic function abnormal* (abdominal or stomach pain; chills; light-colored stools; dark urine; diarrhea; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *hepatitis*; *jaundice*; *myopathy* (muscular pain, tenderness, wasting or weakness); *pancreatitis* (abdominal pain; darkened urine; yellowing of the skin or eyes); *paresthesia* (abnormal sensation of burning or stinging of skin); *peripheral ischemia* (abdominal pain; chest pain; itching of skin; numbness and tingling of fingers, toes, or face; pain in arms, legs, or lower back; pale or cold hands or feet; weakness in legs); *peripheral neuropathy* (burning, numbness, tingling, or painful sensations, weakness in arms, hands, legs, or feet, unsteadiness or awkwardness); *pyogenic granuloma*; *stroke* (confusion, difficulty in speaking, slow speech, inability to speak, inability to move arms, legs, or facial muscles, double vision, headache); *thromboembolism* (pain in chest, groin, or legs, especially the calves; difficulty breathing, severe; sudden headache; slurred speech, sudden; unexplained shortness of breath, sudden; loss of coordination, sudden; severe weakness or numbness in arm or leg; vision changes).

DIAGNOSTIC TESTS: *hepatic function abnormal*.

Secondary Actions or Rebound Effects: *psoriasiform rash* (skin irritation or rash, including rash that looks like psoriasis).

Acyclovir (Systemic)

Commercial name(s): *Alti-Acyclovir; Avirax; Zovirax; Zovirax Wellstat Pac; Zovirax Zostab Pac.*

Category: Antiviral (systemic).

Conventional indications: Herpes genitalis, initial episode (treatment); Herpes genitalis, recurrent episodes (treatment); Herpes simplex (treatment); Herpes simplex, neonatal infection (treatment); Herpes simplex encephalitis (treatment); Herpes zoster (treatment); Varicella (treatment); Herpes simplex (prophylaxis); Herpes zoster (prophylaxis); Herpes zoster ophthalmicus (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation; confusion; consciousness, decreased; delirium; encephalopathic changes* (coma; confusion; hallucinations; seizures; tremors); *encephalopathy* (blurred vision; confusion; dizziness; mood or mental changes; seizures; unusual tiredness or weakness); *hallucinations* (seeing, hearing, or feeling things that are not there); *mental obtundation* (mental changes); *psychosis* (mood or mental changes, severe).

VERTIGO: *lightheadedness; dizziness.*

HEAD: *headache; alopecia* (loss of hair); *encephalopathy* (blurred vision; confusion; dizziness; mood or mental changes; seizures; unusual tiredness or weakness).

VISION: *visual abnormalities* (changes in vision).

STOMACH: *nausea; vomiting.*

ABDOMEN: *hyperbilirubinemia* (yellow eyes or skin)

RECTUM: *diarrhea.*

KIDNEYS: *acute renal failure* (abdominal pain; decreased frequency of urination or amount of urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness); nephrotoxicity (crystallization of acyclovir within renal tubules; elevation of serum creatinine, transient).

URINE: *hematuria* (blood in urine).

EXTREMITIES: *ataxia* (shakiness and unsteady walk; clumsiness, unsteadiness, or other problems with muscle control or coordination); *myalgia* (muscle pain); *peripheral edema* (swelling of hands, feet, or lower legs).

SLEEP: *somnolence* (drowsiness).

FEVER: *fever.*

SKIN: *alopecia* (loss of hair); *erythema multiforme; pruritus; rash; toxic epidermal necrolysis* (blistering, peeling, or loosening of skin; muscle cramps, pain, or weakness; red or irritated eyes; skin rash, itching, or hives; sore throat, fever, or chills; sores, ulcers, or white spots in mouth or on lips); *urticaria* (hives).

GENERALITIES: **inflammation at the injection site** (pain, swelling, or redness at site of injection); **malaise** (general feeling of discomfort or illness); **phlebitis; alopecia** (loss of hair); *anaphylaxis* (changes in facial skin color; coughing; difficulty in breathing or

swallowing; dizziness or feeling faint, severe; fast heartbeat; rash, itching, or hives; sense of agitation or uneasiness; swelling of eyelids, face, or lips); *anemia* (pale skin; unusual tiredness or weakness); *angioedema* (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs); *ataxia* (shakiness and unsteady walk; clumsiness, unsteadiness, or other problems with muscle control or coordination); *disseminated intravascular coagulation (DIC)* (cyanosis [bluish coloring], especially of the hands and feet; bruising at the injection site; persistent bleeding or oozing from puncture sites or mucous membranes [bowel, mouth, nose, or urinary bladder]); *encephalopathic changes* (coma; confusion; hallucinations; seizures; tremors); *encephalopathy* (blurred vision; confusion; dizziness; mood or mental changes; seizures; unusual tiredness or weakness); *erythema multiforme*; *hemolysis*; *hyperbilirubinemia* (yellow eyes or skin); *hypotension* (faintness or lightheadedness); *leukocytosis*; *leukopenia* (chills, fever, or sore throat); *lymphadenopathy* (swollen, painful, or tender lymph nodes [glands] in neck, armpit, or groin); *myalgia* (muscle pain); *neuropsychiatric toxicity*; *neutropenia*; *neutrophilia* (chills, fever, or sore throat); *paresthesia* (burning, prickling, or tingling sensations); *peripheral edema* (swelling of hands, feet, or lower legs); *seizures*; *Stevens-Johnson syndrome*; *thrombocytopenia*; *thrombocytosis* (black, tarry stools; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *tremors* (shakiness); *toxic epidermal necrolysis* (blistering, peeling, or loosening of skin; muscle cramps, pain, or weakness; red or irritated eyes; skin rash, itching, or hives; sore throat, fever, or chills; sores, ulcers, or white spots in mouth or on lips); neurotoxicity (coma; hallucinations; lethargy; seizures; tremors).

DIAGNOSTIC TESTS: *anemia*; *elevated liver function tests*; *hematuria*; *hemolysis*; *hyperbilirubinemia*; *leukocytosis*; *leukopenia*.

Acyclovir (Topical)

Commercial name(s): *Zovirax*.

Category: Antiviral (topical).

Conventional indications: Herpes simplex (treatment); Herpes zoster (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

GENITALIA FEMALE: *vulvitis* (itching, stinging, or redness of the genital area).

SKIN: *pruritus* (itching); *skin rash*.

GENERALITIES: burning; pain, mild; stinging.

Adalimumab (Systemic)

Commercial name(s): *Humira*.

Category: Antirheumatic; Biologic response modifier.

Conventional indications: Arthritis, rheumatoid (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion*.

VERTIGO: syncope (fainting).

HEAD: **headache;** hematoma, subdural (blurred vision; irregular heartbeat; nausea and vomiting; severe headache).

EYE: cataract (blindness; blurred vision; decreased vision).

NOSE: **sinusitis** (pain or tenderness around eyes and cheekbones; fever stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

THROAT: esophagitis (difficulty in swallowing; pain or burning in throat; chest pain; heartburn; vomiting; sores, ulcers, or white spots on lips or tongue or inside the mouth).

EXTERNAL THROAT: parathyroid disorder (bone fractures; confusion; constipation; dry skin; hair loss; headache; increased thirst; increased urination; loss of appetite; muscle cramps or spasms; nausea; seizures; trouble thinking; vomiting).

STOMACH: **nausea;** carcinoma, gastrointestinal (abdominal discomfort; blood in stool; change in bowel habits; difficulty swallowing or eating; lump or swelling in the abdomen; nausea; loss of appetite; unexplained weight loss; unusual tiredness or weakness; vomiting; yellow skin or eyes); gastroenteritis (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); gastrointestinal disorder (diarrhea; loss of appetite; nausea or vomiting; stomach pain, fullness, or discomfort; indigestion; passing of gas); hemorrhage, gastrointestinal (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); vomiting.

ABDOMEN: **abdominal pain; cholecystitis** (indigestion; stomach pain; severe nausea; vomiting); **cholelithiasis** (abdominal fullness; gaseous abdominal pain; recurrent fever; yellow eyes or skin); **liver function, decreased;** carcinoma, gastrointestinal (abdominal discomfort; blood in stool; change in bowel habits; difficulty swallowing or eating; lump or swelling in the abdomen; nausea; loss of appetite; unexplained weight loss; unusual tiredness or weakness; vomiting; yellow skin or eyes); gastroenteritis (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); gastrointestinal disorder (diarrhea; loss of appetite; nausea or vomiting; stomach pain, fullness, or discomfort; indigestion; passing of gas); hemorrhage, gastrointestinal (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); hepatic necrosis (abdominal or stomach pain; black, tarry stools; chills; light-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); ketosis (nausea; stomach pain; vomiting); pelvic pain.

RECTUM: hemorrhage, gastrointestinal.

BLADDER: **urinary tract infection** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); cystitis (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate).

KIDNEYS: **pyelonephritis** (chills; fever; frequent or painful urination; headache; stomach pain); **urinary tract infection** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); calculus (blood in urine; nausea and vomiting; pain in groin or genitals; sharp back pain just below ribs).

URINE: hematuria (blood in urine).

GENITALIA MALE: carcinoma, urogenital (abdominal pain; abnormal vaginal bleeding or discharge; blood in urine; difficult or frequent urination; lump or swelling in abdomen).

GENITALIA FEMALE: carcinoma, urogenital (abdominal pain; abnormal vaginal bleeding or discharge; blood in urine; difficult or frequent urination; lump or swelling in abdomen); menstrual disorder (menstrual changes).

RESPIRATION: upper respiratory infection (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); asthma/bronchospasm (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); dyspnea (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); lung disorder (difficulty in breathing); lung function, decreased (difficulty in breathing); lung disease, interstitial (cough; difficult breathing; fever; shortness of breath).

CHEST: arrhythmia; atrial fibrillation (dizziness; fainting; fast, slow, or irregular heartbeat); carcinoma, breast (clear or bloody discharge from nipple; inverted nipple; dimpling of breast skin; lump in breast or under the arm; persistent crusting or scaling of nipple; redness or swelling of breast; sore on the skin of the breast that does not heal); congestive heart failure (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing); coronary artery disorder (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea); lung disorder (difficulty in breathing); lung function, decreased (difficulty in breathing); pain, heart arrest (stopping of heart; no blood pressure or pulse; unconsciousness); myocardial infarct (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); pain, thorax; palpitations (fast, irregular, pounding, or racing heartbeat or pulse); pericardial effusion (chest pain or discomfort; shortness of breath); pericarditis (anxiety; blue or pale skin; chest pain, possibly moving to the left arm, neck, or shoulder; chills; shortness of breath; unusual tiredness or weakness); pleural effusion (chest pain; shortness of breath); pneumonia (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); tachycardia (fast, pounding, or irregular heartbeat or pulse); tuberculosis reactivated (chest pain; cough; coughing or spitting up blood; difficulty in breathing; sore throat; muscle aches; night sweats; sudden high fever or low-grade fever for months; unusual tiredness); lung disease, interstitial (cough; difficult breathing; fever; shortness of breath); pulmonary fibrosis (fever; cough; shortness of breath).

BACK: pain.

EXTREMITIES: arthritis (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); bone disorder (bone deformity; decrease in height; difficulty in moving or walking; headache; loss of hearing; pain in back, ribs, arms, or legs; redness or swelling in arms or legs); bone fracture, non spontaneous (pain or swelling in arms or legs without any injury); bone necrosis (pain in bones); cramps, muscle; edema, peripheral (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); joint disorder (difficulty in moving; muscle pain or stiffness; pain, swelling, or redness in joints); myasthenia (loss of strength or energy; muscle pain or weakness); pain in extremities; pyogenic arthritis (muscle or joint stiffness, tightness, or rigidity); synovitis (joint or muscle pain or stiffness); tendon disorder

(pain; swelling); thrombosis, leg (pain in lower legs; redness or swelling to lower leg); tremor (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet).

FEVER: fever.

SKIN: cellulitis (itching, pain, redness, swelling, tenderness; warmth on skin); **rash**; carcinoma, skin (persistent non-healing sore; reddish patch or irritated area; shiny bump; pink growth; white, yellow or waxy scar-like area); erysipelas (raised, firm, bright red patches of skin on arm or leg); melanoma (new mole; change in size, shape or color of existing mole; mole that leaks fluid or bleeds); cutaneous vasculitis (blisters on skin).

GENERALITIES: agranulocytosis (cough or hoarseness; fever with or without chills; general feeling of tiredness or weakness; lower back or side pain; painful or difficult urination; sore throat; sores, ulcers, or white spots on lips or in mouth; unusual bleeding or bruising); **dehydration** (confusion; decreased urination; dizziness; dry mouth; fainting; increase in heart rate; lightheadedness; rapid breathing; sunken eyes; thirst; unusual tiredness or weakness; wrinkled skin); **flu syndrome** (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **granulocytopenia** (fever; chills; cough; sore throat; ulcers, sores, or white spots in mouth; shortness of breath; unusual tiredness or weakness); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **hypertension** (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); **injection site reaction** (bleeding, blistering, burning, coldness, discoloration of skin; feeling of pressure; hives; infection; inflammation; itching; lumps; numbness; pain; rash; redness; scarring; soreness; stinging; swelling; tenderness; tingling; ulceration; warmth); **lupus erythematosus syndrome** (skin rash, hives, or itching; fever; sore throat; swollen or painful glands; bone or joint pain; unusual tiredness or weakness); **lymphoma like reaction** (swollen glands; weight loss; general feeling of illness; black, tarry stools; yellow skin and eyes); **sepsis** (chills; confusion; dizziness; lightheadedness; fainting; fast heartbeat; fever; rapid, shallow breathing); **sinusitis** (pain or tenderness around eyes and cheekbones; fever stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); **upper respiratory infection** (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); adenoma; allergic reactions (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); arrhythmia; arthritis (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); bone disorder (bone deformity; decrease in height; difficulty in moving or walking; headache; loss of hearing; pain in back, ribs, arms, or legs; redness or swelling in arms or legs); bone fracture, non spontaneous (pain or swelling in arms or legs without any injury); bone necrosis (pain in bones); carcinoma, breast (clear or bloody discharge from nipple; inverted nipple; dimpling of breast skin; lump in breast or under the arm; persistent crusting or scaling of nipple; redness or swelling of breast; sore on the skin of the breast that does not heal); carcinoma, gastrointestinal (abdominal discomfort; blood in stool; change in bowel habits; difficulty swallowing or eating; lump or swelling in the abdomen; nausea; loss of appetite;

unexplained weight loss; unusual tiredness or weakness; vomiting; yellow skin or eyes); carcinoma, skin (persistent non-healing sore; reddish patch or irritated area; shiny bump; pink growth; white, yellow or waxy scar-like area); carcinoma, urogenital (abdominal pain; abnormal vaginal bleeding or discharge; blood in urine; difficult or frequent urination; lump or swelling in abdomen); cardiovascular disorder (fainting; fast or slow heartbeat; irregular pulse; troubled breathing [dyspnea] on exertion); congestive heart failure (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing); coronary artery disorder (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea); cramps, muscle; edema, peripheral (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); fungal infection; healing abnormal; herpes zoster (painful blisters on trunk of body); **hypercholesterolemia** (large amount of cholesterol in the blood); **hyperlipidemia** (large amount of fat in the blood); hypertensive encephalopathy (agitation; back pain; blurred vision; coma; confusion; dizziness; drowsiness; fever; hallucinations; headache; irritability; mood or mental changes; seizures; stiff neck; unusual tiredness or weakness; vomiting); joint disorder (difficulty in moving; muscle pain or stiffness; pain, swelling, or redness in joints); ketosis (nausea; stomach pain; vomiting); leukopenia (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); lymphoma (swollen glands; weight loss; general feeling of illness; black, tarry stools; yellow skin and eyes); multiple sclerosis (blurred vision; difficulty controlling your bladder or bowels; difficulty walking; feeling sad or depressed; forgetful; muscle cramps; numbness or tingling in your arms, legs, or face; slurred speech or problems swallowing; unusual tiredness or weakness); myasthenia (loss of strength or energy; muscle pain or weakness); myocardial infarct (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); palpitations (fast, irregular, pounding, or racing heartbeat or pulse); pancytopenia (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); paraproteinemia (bone pain or fracture; coma; confusion; decreased or increased urination; depression; dizziness; headache; nausea; pale skin; shortness of breath; unusual bleeding or bruising; unusual tiredness or weakness; visual disturbances; vomiting); paresthesia (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); polycythemia (abdominal pain; bleeding from gums or nose; dizziness; eye pain; headache; ringing in the ears; tiredness; weakness); synovitis (joint or muscle pain or stiffness); tendon disorder (pain; swelling); vascular disorder (changes in skin color; cold hands and feet; pain, redness, or swelling in arm or leg); anaphylaxis (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *blood dyscrasias* (fever and sore throat; unusual bruising or bleeding; unusual tiredness or weakness; pale skin); *infections and sepsis, serious, including fatalities*; *thrombocytopenia* (black, tarry stools;

bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: **cholelithiasis; hypercholesterolemia; hyperlipidemia; calculus, renal; leukopenia; pancytopenia; paraproteinemia; polycythemia; hematuria.**

Adapalene (Topical)

Commercial name(s): *Differin.*

Category: Antiacne agent (topical).

Conventional indications: Acne vulgaris (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: **burning sensation; erythema** (redness of skin); **pruritus** (itching of skin); **scaling** (dryness and peeling of skin); **stinging.**

Secondary Actions or Rebound Effects: *acne flares* (worsening of acne).

Adefovir (Systemic)

Commercial name(s): *Hepsera.*

Category: Antiviral (systemic).

Conventional indications: Chronic Hepatitis B (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: **headache.**

STOMACH: *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); *nausea.*

ABDOMEN: **abdominal pain; flatulence** (bloated; full feeling; excess air or gas in stomach or intestines; passing gas); *hepatomegaly with steatosis, severe, including fatal cases* (mainly in women); *liver insufficiency.*

RECTUM: *diarrhea.*

KIDNEYS: *nephrotoxicity; renal insufficiency.*

GENERALITIES: **asthenia** (lack or loss of strength); *lactic acidosis* (mainly in women).

Adenosine (Systemic)

Commercial name(s): *Adenocard; Adenoscan.*

Category: Antiarrhythmic; diagnostic aid adjunct (ischemic heart disease).

Conventional indications: Tachycardia, supraventricular, paroxysmal (treatment); Myocardial perfusion imaging, radionuclide (adjunct); Stress echocardiography (adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: *loss of consciousness.*

VERTIGO: *dizziness; lightheadedness.*

HEAD: headache.

FACE: flushing of face; pain, jaw.

THROAT: pain.

STOMACH: gastrointestinal discomfort (abdominal or stomach pain; diarrhea; nausea; vomiting); *nausea.*

ABDOMEN: gastrointestinal discomfort (abdominal or stomach pain; diarrhea; nausea; vomiting).

RESPIRATION: dyspnea (shortness of breath).

COUGH: *cough.*

CHEST: arrhythmias, new (rebound effect?); ventricular contractions, premature (rebound effect?); atrial contractions, premature (rebound effect?); pain, chest (rebound effect?); sinus bradycardia; sinus tachycardia; skipped beats; *heart block* (first-, second-, or third-degree).

EXTREMITIES: pain, arm; *numbness in arms; tingling in arms.*

GENERALITIES: *hypotension, prolonged.*

Secondary Actions or Rebound Effects: arrhythmias, new; ventricular contractions, premature; atrial contractions, premature.

Agalsidase Beta (Systemic)

Commercial name(s): *Fabrazyme.*

Category: Enzyme (alpha-galactosidase A) replenisher.

Conventional indications: Fabry disease (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: anxiety (fear; nervousness); depression (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping).

VERTIGO: dizziness; *vertigo* (dizziness or lightheadedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: headache; *stroke* (confusion; difficulty in speaking; slow speech; inability to speak; inability to move arms, legs, or facial muscles; double vision, headache).

HEARING: *hypoacusia* (partial loss of hearing, swelling of the lip or ear).

NOSE: rhinitis (stuffy nose; runny nose; sneezing); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

THROAT: pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); *throat tightness.*

STOMACH: dyspepsia (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); nausea.

ABDOMEN: abdominal pain.

KIDNEYS: *nephrotic syndrome* (cloudy or bloody urine; high blood pressure; swelling of face, feet or lower legs).

GENITALIA MALE: **testicular pain** (swelling of testes).

LARYNX AND TRACHEA: **laryngitis** (cough; dryness or soreness of throat; hoarseness; trouble in swallowing; voice changes).

RESPIRATION: **bronchitis** (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); **bronchospasm** (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); **dyspnea** (shortness of breath; difficult or labored breathing; tightness in chest, wheezing).

CHEST: **bronchitis** (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); **bronchospasm** (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); **cardiomegaly** (chest pain or discomfort; shortness of breath; irregular heartbeat; fatigue); **pain, chest; tightness, chest; bradycardia** (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath, slow or irregular heartbeat; unusual tiredness); *cardiac arrest* (stopping of heart; no blood pressure or pulse; unconsciousness); *cardiac arrhythmia* (chest pain or discomfort; dizziness; fainting; fast, slow, or irregular heartbeat; lightheadedness; pounding or rapid pulse); *decreased cardiac output; tachycardia* (fast, pounding, or irregular heartbeat or pulse).

EXTREMITIES: **arthrosis** (degenerative disease of the joint); **myalgia** (joint pain; swollen joints, muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **skeletal pain; ataxia** (shakiness and unsteady walk; unsteadiness; trembling, or other problems with muscle control or coordination).

CHILL: **chills/rigors** (feeling unusually cold, shivering).

FEVER: **fever, not related to infusion.**

SKIN: **pallor** (paleness of skin); **pruritus** (itching skin); **urticaria** (hives or welts; itching; redness of skin; skin rash); *rash*.

GENERALITIES: **edema** (swelling of ankles, feet, and lower legs); **hypertension** (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); **hypotension** (blurred vision; confusion; dizziness; faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); **immunogenicity** (body produces substance that can bind to drug making it less effective or cause side effects); **myalgia** (joint pain; swollen joints, muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **pain; paraesthesias** (burning, crawling, itching, numbness, prickling, “pins and needles” , or tingling feelings); **sensation of change in temperature; sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *ataxia* (shakiness and unsteady walk; unsteadiness; trembling, or other problems with muscle control or coordination); *bradycardia* (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath, slow or irregular heartbeat; unusual tiredness); *cardiac arrest* (stopping of heart; no blood pressure or pulse; unconsciousness); *cardiac arrhythmia* (chest pain or discomfort; dizziness; fainting; fast, slow, or irregular heartbeat; lightheadedness; pounding or rapid pulse); *decreased cardiac output; nephrotic syndrome* (cloudy or bloody urine; high blood pressure; swelling of face, feet or lower legs); *stroke* (confusion; difficulty in speaking; slow speech; inability to

speak; inability to move arms, legs, or facial muscles; double vision, headache); *tachycardia* (fast, pounding, or irregular heartbeat or pulse).

Albendazole (Systemic)

Commercial name(s): *Albenza*.

Category: Anthelmintic (systemic).

Conventional indications: Hydatid disease (treatment); Neurocysticercosis (treatment); Ascariasis (treatment); Capillariasis (treatment); Cutaneous larva migrans; Enterobiasis (treatment); Hookworm infections (treatment); Strongyloidiasis (treatment); Taeniasis (treatment); Trichostrongyliasis (treatment); Trichuriasis (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *alopecia* (thinning of hair or moderate hair loss).

STOMACH: *gastrointestinal disturbances* (abdominal pain; diarrhea; nausea; vomiting).

ABDOMEN: **abnormal liver function test results;** *gastrointestinal disturbances* (abdominal pain; diarrhea; nausea; vomiting).

SKIN: *alopecia* (thinning of hair or moderate hair loss).

GENERALITIES: *central nervous system (CNS) effects* (dizziness; headache); *alopecia* (thinning of hair or moderate hair loss); *hypersensitivity* (fever; skin rash or itching); *neutropenia* (sore throat and fever; unusual tiredness and weakness).

DIAGNOSTIC TESTS: **abnormal liver function test results;** *neutropenia*.

Albumin Human (Systemic)

Commercial name(s): *Albuminar-25; Albuminar-5; Albutein 25%; Albutein 5%; Buminat 25%; Buminat 5%; Plasbumin-25; Plasbumin-5*.

Category: Blood volume expander; antihyperbilirubinemic.

Conventional indications: Hypovolemia (treatment); Hypoproteinemia (treatment); Burns, severe (treatment adjunct); Hyperbilirubinemia, neonatal (treatment); Respiratory distress syndrome, adult (ARDS) (treatment adjunct); Cardiopulmonary bypass (treatment adjunct); Ascites (treatment adjunct); Nephrosis, acute (treatment adjunct) or Nephrotic syndrome, acute (treatment adjunct); Hemodialysis; Pancreatitis (treatment adjunct) or Intra-abdominal infections (treatment adjunct); Liver failure, acute (treatment adjunct); Red blood cell resuspension; Plasmapheresis.

Primary Actions or Pathogenetic Symptoms

MOUTH: *increased salivation*.

STOMACH: *nausea; vomiting*.

ABDOMEN: *hypobilirubinemia*.

KIDNEYS: *salt and water retention*.

CHEST: *congestive heart failure* (especially in patients with compromised cardiovascular function); *decreased myocardial contractility; pulmonary edema; tachycardia*.

CHILL: *chills*.

FEVER: *fever.*

SKIN: *skin rash; hives.*

GENERALITIES: *blood volume expander / hypertension, hypervolemia; hypobilirubinemia; congestive heart failure* (especially in patients with compromised cardiovascular function); *salt and water retention; changes in blood pressure, pulse, and respiration; tachycardia.*

DIAGNOSTIC TESTS: *hypobilirubinemia.*

Albumin Microspheres Sonicated (Systemic)

Category: Diagnostic aid, ultrasound (cardiac disease).

Conventional indications: Cardiac imaging, ultrasound (diagnosis adjunct).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache .*

MOUTH: *changes in taste; dryness.*

STOMACH: *nausea; vomiting.*

RESPIRATION: *dyspnea* (difficulty breathing or shortness of breath).

CHEST: *chest pain; tachycardia.*

FEVER: *fever.*

SKIN: *flushing of skin or sensation of warmth; allergic reaction* (itching; skin rash)

GENERALITIES: *flushing of skin or sensation of warmth; allergic reaction* (itching; skin rash); *fatigue; pain at injection site; weakness; tachycardia.*

Alcohol and Acetone (Topical)

Commercial name(s): *Seba-Nil Liquid Cleanser; Tyrosum Liquid; Tyrosum Packets.*

Category: Antiacne agent (topical); cleansing agent (astringent; defatting).

Conventional indications: Acne vulgaris (treatment) or Oily skin (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *burning; hypersensitivity* (irritation, pain, redness, or swelling of skin); *infection; stinging.*

GENERALITIES: *hypersensitivity* (irritation, pain, redness, or swelling of skin).

Alcohol and Sulfur (Topical)

Commercial name(s): *Acne Lotion 10; Liquimat Light; Liquimat Medium; Postacne.*

Category: Antiacne agent (topical); cleansing agent (astringent; defatting).

Conventional indications: Acne vulgaris (treatment) or Oily skin (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *burning; dryness; hypersensitivity* (skin irritation not present before therapy); *peeling; stinging*.

GENERALITIES: *hypersensitivity* (skin irritation not present before therapy).

Aldesleukin (Systemic)

Commercial name(s): *Proleukin*.

Category: Biological response modifier; antineoplastic.

Conventional indications: Carcinoma, renal (treatment); Melanoma, metastatic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *neuropsychiatric effects, including mental status changes* (agitation; confusion; mental depression; drowsiness; unusual tiredness); *aphasia* (trouble in speaking); *coma*; *severe depression leading to suicide*.

VERTIGO: *dizziness*.

HEAD: *headache*; *sensory neurologic effects* (blurred or double vision; loss of taste); *stroke*.

MOUTH: *stomatitis* (sores in mouth and on lips); *gingivitis* (bleeding gums; redness and swelling of gums); *glossitis* (redness, swelling, and soreness of tongue); *gum hemorrhage* (bleeding gums).

EXTERNAL THROAT: *hypothyroidism* (changes in menstrual periods; clumsiness; coldness; dry, puffy skin; headache; listlessness; muscle aches; sleepiness; tiredness; weakness; goiter [swelling in the front of the neck]).

STOMACH: *loss of appetite; nausea; vomiting*; *bleeding, gastrointestinal* (blood in stools; bloody vomit).

ABDOMEN: *hepatotoxicity* (seen as changes on hepatic function tests that are attributable to severe cholestasis; yellow eyes and skin); *ascites* (bloating and stomach pain); *bleeding, gastrointestinal* (blood in stools; bloody vomit); *intestinal ischemic necrosis or perforation* (bloody vomit; severe stomach pain); *hepatic failure*.

RECTUM: *diarrhea*; *bleeding, gastrointestinal* (blood in stools; bloody vomit); *constipation*.

BLADDER: *anuria; oliguria*.

KIDNEYS: *renal toxicity, including oliguria and anuria* (unusual decrease in urination); *renal failure*.

URINE: *proteinuria*.

RESPIRATION: *pulmonary toxicity, including respiratory failure, tachypnea, and wheezing* (rapid breathing; severe shortness of breath); *respiratory insufficiency requiring intubation*.

CHEST: *arrhythmias, especially sinus tachycardia* (fast or irregular heartbeat); *pulmonary toxicity, including pulmonary congestion, pulmonary edema, pleural effusion* (shortness of breath); *myocardial infarction* (chest pain); *myocardial ischemia*; *pulmonary toxicity, including respiratory failure, tachypnea, and wheezing* (rapid

breathing; severe shortness of breath); *cardiac arrest*; *cardiomyopathy*; *congestive heart failure*; *endocarditis*; *myocarditis*; *pericardial effusion*; *ventricular arrhythmias*, potentially fatal.

EXTREMITIES: peripheral edema with symptomatic nerve or vessel compression (tingling of hands or feet); *arthralgia*; *myalgia* (joint pain; muscle pain); *gangrene*.

CHILL: chills.

FEVER: fever.

SKIN: dry skin; macular erythema (skin rash or redness with burning or itching, followed by peeling); *exfoliative dermatitis* (blisters on skin [can be fatal]); *eruptions*, life-threatening bullous drug (resembling toxic epidermal necrolysis); *erythema nodosum*; *urticaria*.

GENERALITIES: anemia; arrhythmias, especially sinus tachycardia (fast or irregular heartbeat); edema, including peripheral edema with symptomatic nerve or vessel compression (tingling of hands or feet); eosinophilia; hypotension (faintness); hypothyroidism (changes in menstrual periods; clumsiness; coldness; dry, puffy skin; headache; listlessness; muscle aches; sleepiness; tiredness; weakness; goiter [swelling in the front of the neck]); infection (fever or chills); leukopenia (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); lymphocytosis; malaise (unusual feeling of discomfort or illness); thrombocytopenia (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); weakness; weight gain of 5 to 10 pounds or more; *ascites* (bloating and stomach pain); *myalgia* (joint pain; muscle pain); *myocardial infarction* (chest pain); *myocardial ischemia*; acidosis; angioedema; azotemia, prerenal (increased serum creatinine and BUN); capillary leak syndrome (CLS); coma; congestive heart failure; eruptions, life-threatening bullous drug (resembling toxic epidermal necrolysis); fatal toxicity; gangrene; hypoalbuminemia; hypokalemia; injection site reaction (pain or redness at site of injection); malignant hyperthermia; seizures; stroke; thrombosis (swelling of feet or lower legs; sudden weakness or inability to move).

DIAGNOSTIC TESTS: anemia; eosinophilia; acidosis; azotemia, prerenal (increased serum creatinine and BUN); hypoalbuminemia; hypokalemia; proteinuria.

Alefacept (Systemic)

Commercial name(s): Amevive.

Category: Antipsoriatic (systemic); Immunosuppressant.

Conventional indications: Psoriasis (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: headache.

NOSE: sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: *nausea*.

ABDOMEN: *fatty infiltration of the liver* (abdominal pain; bloating of abdomen; dark urine; light-colored stools; nausea and vomiting; yellow eyes or skin); *hepatic injury* (pruritus; dark urine; persistent anorexia; yellow eyes or skin; influenza [flu]-like symptoms; right upper quadrant tenderness); *hepatitis* (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); *severe liver failure* (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin).

COUGH: *cough, increased*.

CHEST: *coronary artery disorder* (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea); *myocardial infarction* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting).

EXTREMITIES: *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); arthralgia (pain in joints; muscle pain or stiffness; difficulty in moving).

CHILL: *chills*.

SKIN: *pruritus* (itching skin).

GENERALITIES: *immunosuppression*; **injection site reactions** (including pain, inflammation, bleeding, edema, mass, skin hypersensitivity); **lymphopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *infections, serious*; *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *cardiovascular events*; *coronary artery disorder* (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea); *hepatitis* (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); *hypersensitivity reactions* (fainting or loss of consciousness; fast or irregular breathing; swelling of eyes or eyelids; trouble in breathing; tightness in chest); *malignancies*; *myocardial infarction* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); arthralgia (pain in joints; muscle pain or stiffness; difficulty in moving).

DIAGNOSTIC TESTS: **lymphopenia**; *fatty infiltration of the liver*.

Alemtuzumab (Systemic)

Commercial name(s): *Campath*.

Category: Antineoplastic; Monoclonal antibody.

Conventional indications: Leukemia, chronic lymphocytic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression* (mood or mental changes).

VERTIGO: *dizziness*.

NOSE: *epistaxis* (bloody nose; unexplained nosebleeds); *rhinitis* (stuffy nose).

MOUTH: *stomatitis*, *ulcerative stomatitis*, *mucositis* (swelling or inflammation of the mouth); *moniliasis* (white patches on tongue, in mouth, or in folds of skin, including the genitals).

THROAT: *pharyngitis* (sore throat).

STOMACH: *nausea*; *anorexia* (loss of appetite; weight loss); *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); *vomiting*.

ABDOMEN: *pain*.

RECTUM: *diarrhea*; *constipation*.

BLADDER: *anuria* (inability to urinate).

GENITALIA MALE: *moniliasis* (white patches on tongue, in mouth, or in folds of skin, including the genitals).

GENITALIA FEMALE: *moniliasis* (white patches on tongue, in mouth, or in folds of skin, including the genitals).

RESPIRATION: *bronchitis*; *pneumonitis*; bronchospasm, acute (troubled breathing, sudden; chest tightness); shortness of breath.

COUGH: cough.

CHEST: *tachycardia* (fast, pounding, or irregular heartbeat or pulse; palpitations); bronchospasm, acute (troubled breathing, sudden; chest tightness).

BACK: *pain*.

EXTREMITIES: *myalgia* (muscle aches); *peripheral edema* (decreased urination; rapid weight gain; bloating or swelling of face, hands, lower legs, and/or feet); *skeletal pain* (bone pain).

SLEEP: *insomnia* (sleeplessness); *somnolence* (sleepiness or unusual drowsiness).

FEVER: *temperature change sensation*.

PERSPIRATION: *sweating, increased*.

SKIN: *purpura* (red or purple spots on skin, varying in size from pinpoint to large bruises)

GENERALITIES: **anemia** (pale skin; troubled breathing, exertional; unusual bleeding or bruising; unusual tiredness or weakness); **infusion-related reactions** (chills; diarrhea; fever; headache; itching, hives, or rash; dizziness, faintness, or light-headedness when getting up from a lying or sitting position; sudden sweating; nausea and vomiting; shortness of breath; tightness in chest; unusual tiredness; wheezing); **neutropenia** (black, tarry stools; blood in urine; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); **thrombocytopenia** (black, tarry stools; blood in urine; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *asthenia* (lack or loss of strength); *dysesthesias* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *herpes simplex* (burning or stinging of skin; painful cold sores or blisters on lips, nose, eyes, or genitals); *hypertension*; *hypotension* (dizziness,

faintness, or light-headedness when getting up from a lying or sitting position; sudden sweating); infection, bacterial, viral, fungal, and protozoal (sometimes fatal [fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination]); myalgia (muscle aches); peripheral edema (decreased urination; rapid weight gain; bloating or swelling of face, hands, lower legs, and/or feet); sepsis (muscle weakness; rash; red or purple spots on the skin, varying in size and remain after pushing skin surface); tachycardia (fast, pounding, or irregular heartbeat or pulse; palpitations); allergic reaction, anaphylactic (flushing of the face or neck; swelling of eyelids, face, or lips; skin rash or itching; troubled breathing or wheezing); malaise (general feeling of discomfort or illness; unusual tiredness or weakness); pancytopenia (black, tarry stools; blood in urine; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); temperature change sensation; tremor; death.

DIAGNOSTIC TESTS: **anemia**; **neutropenia**; **thrombocytopenia**; *pancytopenia*.

Alendronate (Systemic)

Commercial name(s): *Fosamax*.

Category: Bone resorption inhibitor.

Conventional indications: Osteoporosis, male (treatment); Osteoporosis, glucocorticoid-induced (treatment adjunct); Osteoporosis, postmenopausal (treatment adjunct); Osteoporosis, postmenopausal (prophylaxis); Paget's disease of bone (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

THROAT: dysphagia (difficulty swallowing); esophagus, irritation, pain, or ulceration of the.

STOMACH: heartburn, nausea.

ABDOMEN: **pain**; distension, abdominal (full or bloated feeling); flatulence (gas).

RECTUM: constipation; diarrhea.

EXTREMITIES: **bone proliferation** (swelling, exostosis); muscle pain.

SKIN: skin rash.

GENERALITIES: **bone proliferation** (swelling, exostosis); muscle pain.

Alfuzosin (Systemic)

Commercial name(s): *Uroxatral*; *Xatral*.

Category: Benign prostatic hyperplasia therapy agent.

Conventional indications: Benign prostatic hyperplasia (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: **dizziness**.

HEAD: headache.

NOSE: sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

THROAT: pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: dyspepsia (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); nausea.

ABDOMEN: pain.

RECTUM: constipation (difficulty having a bowel movement [stool]).

GENITALIA MALE: impotence (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection); priapism (painful or prolonged erection of the penis).

RESPIRATION: bronchitis (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); upper respiratory tract infection (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

CHEST: bronchitis (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); pain; tachycardia (fast, pounding, or irregular heartbeat or pulse).

GENERALITIES: fatigue (unusual tiredness or weakness); pain; sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); upper respiratory tract infection (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); tachycardia (fast, pounding, or irregular heartbeat or pulse).

Alglucerase (Systemic)

Commercial name(s): *Ceredase*.

Category: Enzyme (glucocerebrosidase) replenisher.

Conventional indications: Gaucher's disease, due to deficiency of glucocerebrosidase (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: nausea; vomiting.

ABDOMEN: abdominal discomfort.

CHILL: chills.

FEVER: fever.

GENERALITIES: swelling at injection site.

Alitretinoin (Topical)

Commercial name(s): *Panretin.*

Category: Antineoplastic (topical).

Conventional indications: Kaposi's sarcoma, cutaneous, AIDS-related (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: **burning; cracking; crusting; drainage; edema** (swelling at site of application); **eschar** (sloughing of skin); **excoriation** (abrasion of the skin); **exfoliative dermatitis** (peeling of skin; skin redness; blisters on skin); **fissure** (groove in the skin); **oozing; pain; pruritus** (itching); **rash, severe; paresthesia** (stinging or tingling of skin); **photosensitivity** (increased sensitivity of skin to the sun).

Allopurinol (Systemic)

Commercial name(s): *Aloprim; Apo-Allopurinol; Purinol; Zyloprim.*

Category: Antihyperuricemic; antigout agent; antiurolithic (uric acid calculi; calcium oxalate calculi).

Conventional indications: Gouty arthritis, chronic (treatment); Hyperuricemia (prophylaxis and treatment); Nephropathy, uric acid (prophylaxis and treatment); Renal calculi, uric acid (prophylaxis); Renal calculi, calcium oxalate, (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: hair loss, unusual; headache.

NOSE: nosebleeds, unexplained.

STOMACH: indigestion; nausea or vomiting without symptoms of skin rash, chills or fever, or muscle aches and pains; pain.

ABDOMEN: hepatitis, granulomatous; hepatotoxicity (swelling in upper abdominal area; yellow eyes or skin); necrosis, hepatic.

RECTUM: diarrhea.

KIDNEYS: calculus, renal, xanthine (blood in urine, difficult or painful urination, pain in lower back and/or side); renal failure, acute (sudden decrease in amount of urine; swelling of face, fingers, feet, and/or lower legs; weight gain, rapid).

EXTREMITIES: bone marrow depression; neuritis, peripheral (numbness, tingling, pain, or weakness in hands or feet).

NAILS: loosening of fingernails.

SLEEP: drowsiness.

SKIN: **dermatitis, allergic** (skin rash, hives, or itching); **rash, maculopapular; dermatitis, exfoliative** (possible prodrome of chills, fever, sore throat, muscle aches or pains, and/or nausea with or without vomiting; red, thickened, scaly skin); lesions, eczematoid, exfoliative, urticarial, vesicular bullous, or purpuric; necrolysis, toxic epidermal (possible prodrome of chills, fever, sore throat, muscle aches or pains, and/or nausea with or without vomiting; redness, tenderness, itching, burning, or peeling of skin; red or irritated eyes).

GENERALITIES: agranulocytosis (fever with or without chills; sores, ulcers, or white spots on lips or in mouth; sore throat); anemia (unusual tiredness and/or weakness); anemia, aplastic (shortness of breath, troubled breathing, tightness in chest, and/or

wheezing; sores, ulcers, or white spots on lips or in mouth; swollen and/or painful glands; unusual bleeding or bruising; unusual tiredness or weakness); *angiitis [vasculitis]*, *hypersensitivity* (chills, fever, and sore throat; muscle aches, pains, or weakness; shortness of breath, troubled breathing, tightness in chest, or wheezing); *bone marrow depression*; *death*; *eosinophilia*; *erythema multiforme* (possible prodrome of chills, fever, sore throat, muscle aches or pains, and/or nausea with or without vomiting; sores, ulcers, or white spots in mouth or on lips; skin rash or sores, hives, and/or itching); *hepatitis, granulomatous*; *hypersensitivity reaction, allopurinol-induced* (initially skin rash immediately preceding or concurrent with chills, fever, and sore throat; muscle aches or pains; and/or nausea with or without vomiting; followed by signs and symptoms of angiitis [vasculitis], hepatotoxicity, and/or acute renal failure); *jaundice, cholestatic*; *leukopenia*; *leukocytosis*; *necrosis, toxic epidermal* (possible prodrome of chills, fever, sore throat, muscle aches or pains, and/or nausea with or without vomiting; redness, tenderness, itching, burning, or peeling of skin; red or irritated eyes); *neuritis, peripheral* (numbness, tingling, pain, or weakness in hands or feet); *Stevens-Johnson syndrome* (possible prodrome of chills, fever, sore throat, muscle aches and pains, and/or nausea with or without vomiting; sores, ulcers, or white spots in mouth or on lips; bleeding sores on lips); *thrombocytopenia* (usually asymptomatic; rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *vasculitis generalized*.

DIAGNOSTIC TESTS: *anemia*; *anemia, aplastic*; *bone marrow depression*; *calculus, renal, xanthine*; *leukopenia*; *leukocytosis*; *thrombocytopenia*.

Secondary Actions or Rebound Effects: **gout attacks, acute, temporary increase in the frequency of.**

Almotriptan (Systemic)

Commercial name(s): *Axert*.

Category: Antimigraine agent.

Conventional indications: Headache, migraine (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety*; *restlessness*; *concentration, impaired*; *euphoria* (exaggerated feeling of mental and physical well-being); *depression, mental*; *nervousness*.

VERTIGO: *dizziness*; *vertigo* (dizziness; feeling of constant movement of self or surroundings; sensation of spinning); *syncope* (fainting).

HEAD: *headache* (rebound effect?).

EYE: *conjunctivitis* (discharge from eye; redness of inner lining of eyelid); *irritation, eye*; *dry eyes*; *nystagmus* (continuous, uncontrolled, back-and-forth and/or rolling eye movements); *pain*.

VISION: *diplopia* (double vision); *scotoma* (loss of vision).

EAR: *pain*; *otitis media* (earache).

HEARING: *hyperacusis* (increased sense of hearing); *tinnitus* (buzzing or ringing in the ears).

NOSE: *epistaxis* (nosebleed); *rhinitis* (runny or stuffy nose); *sinusitis* (aching, fullness, or tension in area of affected sinus); *parosmia* (change in sense of smell); *sneezing*.

MOUTH: *dry mouth*; *taste alteration*; *salivation, increased*.

THROAT: *pharyngitis* (sore throat).

EXTERNAL THROAT: *pain, neck; neck, rigid*.

STOMACH: *nausea*; *dyspepsia* (belching; heartburn; indigestion; stomach discomfort, upset or pain); *vomiting*; *esophageal reflux* (chest pain; difficulty in swallowing; heartburn, repeated; regurgitation of food); *gastritis*; *gastroenteritis* (abdominal pain; anorexia; diarrhea; nausea; unusual tiredness or weakness; vomiting); *thirst, increased*.

ABDOMEN: *cramping*; *pain, abdominal*; *colitis* (abdominal cramping or pain; anorexia; black, tarry stools; blood in stools; diarrhea, watery; weight loss); *gastroenteritis* (abdominal pain; anorexia; diarrhea; nausea; unusual tiredness or weakness; vomiting).

RECTUM: *diarrhea*.

GENITALIA FEMALE: *dysmenorrhea* (painful menstrual period).

LARYNX AND TRACHEA: *laryngismus* (tightness in the throat); *laryngitis* (cough; dry or sore throat; difficulty in swallowing; hoarseness; loss of voice).

RESPIRATION: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *dyspnea* (shortness of breath); *hyperventilation* (rapid breathing).

CHEST: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *pain, chest*; *palpitations*; *tachycardia* (fast heartbeat); *coronary artery vasospasm* (chest pain; tightness in chest); *myocardial infarction* (chest pain, severe; cool, pale skin; dizziness; increased sweating; nausea; shortness of breath); *myocardial ischemia, transient* (chest pain); *tachycardia, ventricular* (fast heartbeat); *ventricular fibrillation*.

BACK: *pain, back*.

EXTREMITIES: *muscle weakness*; *myalgia* (muscle aches); *arthralgia* (pain in joints); *arthritis* (pain, redness, swelling, or warmth in joints); *coordination, abnormal* (clumsiness or unsteadiness); *hyperreflexia* (exaggeration of reflexes); *hypertonia* (muscle stiffness); *myopathy* (muscle pain or weakness).

SLEEP: *somnolence* (sleepiness); *insomnia* (trouble in sleeping).

DREAMS: *change in dreams or nightmares*.

CHILL: *chills*.

FEVER: *fever*.

PERSPIRATION: *diaphoresis* (profuse sweating).

SKIN: *dermatitis* (itching, redness, or swelling of skin); *erythema* (redness of skin); *pruritus* (itching of skin); *rash*; *photosensitivity* (increased sensitivity to sunlight).

GENERALITIES: *paresthesia* (burning, numbness, prickly, or tingling sensation); *asthenia* (lack or loss of strength); *fatigue*; *hypoesthesia* (decreased sensitivity to touch); *myalgia* (muscle aches); *palpitations*; *sinusitis* (aching, fullness, or tension in area of affected sinus); *tachycardia* (fast heartbeat); *tremor* (quivering or trembling); *vasodilation* (feeling of warmth or heat; flushing or redness of skin); *arthralgia* (pain in joints); *arthritis* (pain, redness, swelling, or warmth in joints); *coronary artery vasospasm* (chest pain; tightness in chest); *hyperreflexia* (exaggeration of reflexes); *hypertension*; *hypertonia* (muscle stiffness); *malaise*; *myocardial infarction* (chest pain,

severe; cool, pale skin; dizziness; increased sweating; nausea; shortness of breath); *myocardial ischemia, transient* (chest pain); *myopathy* (muscle pain or weakness); *neuropathy* (change in sense of touch; sensation of pins and needles; stabbing pain); *sedation*; *tachycardia, ventricular* (fast heartbeat); *ventricular fibrillation*; *weakness*.

DIAGNOSTIC TESTS: *tachycardia, ventricular*.

Secondary Actions or Rebound Effects: *headache*; *tachycardia, ventricular* (fast heartbeat); *ventricular fibrillation*.

Alosetron (Systemic)

Commercial name(s): *Lotronex*.

Category: Serotonin antagonist; Irritable bowel syndrome therapy agent.

Conventional indications: Bowel syndrome, irritable (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: behavior, subdued (withdrawn or socially detached behavior) (observed in female mice).

HEAD: *headache*.

STOMACH: *gastrointestinal discomfort or pain*; *regurgitation and reflux* (heartburn; vomiting).

ABDOMEN: *discomfort and pain, abdominal* (stomach pain; stomach soreness or discomfort); *distention, abdominal* (swelling of abdominal or stomach area; full or bloated feeling; pressure in the stomach); *gastrointestinal discomfort or pain*; *colitis, ischemic* (abdominal pain, new or worsening; bloody diarrhea; rectal bleeding); *ileus* (abdominal pain; severe constipation; severe vomiting); *ischemia, colonic, secondary*; *ischemia, mesenteric, small bowel* (abdominal pain, usually after eating a meal; constipation; diarrhea; nausea; vomiting); *obstruction, bowel* (diarrhea; pain or cramping in abdomen; nausea and vomiting); *perforation, bowel* (abdominal or stomach cramps or pain; black, tarry stools; diarrhea; fever; severe vomiting, sometimes with blood); *ulceration, bowel* (abdominal or stomach pain, cramping, or burning; black, tarry stools; constipation; diarrhea; vomiting of blood or material that looks like coffee grounds; nausea; heartburn; indigestion); *toxic megacolon*.

RECTUM: **constipation** (difficulty having a bowel movement (stool)); *hemorrhoids* (bleeding after defecation; uncomfortable swelling around anus); *complications of constipation, serious, during IBS clinical trials* (in women); *impaction* (constipation; nausea; severe stomach pain; vomiting).

RESPIRATION: respiration, labored (difficult breathing) (observed in female mice).

EXTREMITIES: ataxia (shakiness and unsteady walk; clumsiness, unsteadiness, trembling, or other problems with muscle control or coordination) (observed in female mice).

SKIN: *skin rash*.

GENERALITIES: *Serotonin syndrome* (euphoria, drowsiness, sustained rapid eye movement, overreaction of the reflexes, rapid muscle contraction and relaxation in the

ankle causing abnormal movements of the foot, clumsiness, restlessness, feeling drunk and dizzy, muscle contraction and relaxation in the jaw, sweating, intoxication, muscle twitching, rigidity, high body temperature, mental status changes were frequent [including confusion and hypomania - a “happy drunk” state], shivering, diarrhea, loss of consciousness and death); *death*; ataxia (shakiness and unsteady walk; clumsiness, unsteadiness, trembling, or other problems with muscle control or coordination) (observed in female mice); convulsions (seizures) (observed in female mice); tremors (shakiness) (observed in female mice).

Alpha1-proteinase Inhibitor, Human (Systemic)

Commercial name(s): *Aralast; Prolastin.*

Category: Alpha1-antitrypsin replenisher.

Conventional indications: Emphysema, panacinar, due to alpha1-antitrypsin deficiency (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness; lightheadedness.*

HEAD: *headache.*

RESPIRATION: *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: *tachycardia* (fast, pounding, or irregular heartbeat or pulse).

SLEEP: *somnolence* (sleepiness or unusual drowsiness).

CHILL: *chills.*

FEVER: *fever up to 38.9°C (102°F), delayed* (for Prolastin).

SKIN: *rash.*

GENERALITIES: *allergic-like reactions; anaphylactic reaction* (cough, difficulty swallowing, dizziness, fast heartbeat, hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue, shortness of breath, skin rash, tightness in chest, unusual tiredness or weakness, wheezing); *anemia, dilutional; flu-like symptoms* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating); *leukocytosis* (chills; cough; eye pain; fever; general feeling of illness; headache; sore throat; unusual tiredness); *tachycardia* (fast, pounding, or irregular heartbeat or pulse).

DIAGNOSTIC TESTS: *anemia, dilutional; leukocytosis.*

Alprostadil (Local)

Commercial name(s): *Caverject; Edex; Muse; Prostin VR; Prostin VR Pediatric.*

Category: Impotence therapy agent; diagnostic aid, erectile dysfunction; diagnostic aid, penile vasculature imaging.

Conventional indications: Erectile dysfunction (treatment); Erectile dysfunction (diagnosis) or Penile vasculature imaging (diagnostic adjunct).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness; faintness.

PROSTATE GLAND: prostatic disorders (pelvic pain).

URETHRA: **bleeding or spotting from urethra** (for suppositories only); **stinging of urethra** (for suppositories only).

GENITALIA MALE: **pain, penile, during erection;** *edema, testicular* (swelling of testes); *fibrosis of penis* (curving of penis with pain during erection) (for injection only); *pain, testicular;* *prolonged erection* (erection continuing for 4 to 6 hours); *priapism* (erection continuing for more than 6 hours with severe and continuing pain of the penis).

GENITALIA FEMALE: *vaginal itching or stinging of female partners* (suppository dosage form).

RESPIRATION: respiratory infection (flu-like symptoms).

CHEST: pulse, rapid; respiratory infection (flu-like symptoms).

GENERALITIES: **bleeding at injection site, transient;** **pain at site of administration;** *ecchymosis or hematoma at site of injection* (bruising or localized blood clot in penis at site of injection); *hypotension* (faintness; lightheadedness); hypertension, reflexive; pulse, rapid; respiratory infection (flu-like symptoms).

Alprostadil (Systemic)

Commercial name(s): *Prostin VR; Prostin VR Pediatric.*

Category: Ductus arteriosus patency adjunct.

Conventional indications: Ductus arteriosus, patent (maintenance).

Primary Actions or Pathogenetic Symptoms

MIND: *hyperirritability; jitteriness; lethargy.*

HEAD: *cerebral bleeding.*

FACE: **flushing of face** (especially with intra-arterial or intra-aortic administration, which is no longer recommended, may indicate misplacement of the catheter and introduction of alprostadil into the subclavian or carotid artery).

EXTERNAL THROAT: *hyperextension of the neck.*

STOMACH: *regurgitation, gastric.*

ABDOMEN: *peritonitis.*

RECTUM: *diarrhea.*

BLADDER: *anuria.*

URINE: *hematuria.*

RESPIRATION: **apnea** (generally occurs within the first hour of infusion; the incidence is greatest in neonates weighing less than 2kg at birth and is also increased if a rapid or large infusion is given initially); *bradypnea; bronchial wheezing; respiratory distress, including respiratory depression* (more frequently in infants); *tachypnea.*

CHEST: *bradycardia; tachycardia; aorta, damage to the* (weakening of the wall, leading to edema, laceration, and possible aneurysm); *cardiac arrest; congestive heart failure; ductus, damage to the; heart block, second degree; pulmonary artery, damage to the; spasm of right ventricle infundibulum; tachycardia, supraventricular; ventricular fibrillation.*

EXTREMITIES: **flushing of arm** (especially with intra-arterial or intra-aortic administration, which is no longer recommended, may indicate misplacement of the catheter and introduction of alprostadil into the subclavian or carotid artery); *cortical hyperostosis; stiffness.*

FEVER: **fever** (primarily a CNS effect); *hypothermia.*

SKIN: *cutaneous vasodilatation* (more frequently in infants); flushing of skin.

GENERALITIES: **flushing; hypocalcemia; bradycardia; hypotension; seizures; tachycardia; anemia; bleeding; coagulation, intravascular, disseminated; congestive heart failure; cortical hyperostosis; edema; hyperglycemia, ketotic** (when given to an infant born to an insulin-dependent diabetic patient); *hypoglycemia; hypokalemia; hypothermia; shock; tachycardia, supraventricular; thrombocytopenia.*

DIAGNOSTIC TESTS: **hypocalcemia; anemia; hematuria; hypercapnia; hyperemia; hyperglycemia, ketotic; hyperkalemia; hypoglycemia; hypokalemia; thrombocytopenia.**

Altretamine (Systemic)

Commercial name(s): *Hexalen.*

Category: Antineoplastic.

Conventional indications: Carcinoma, ovarian, epithelial (treatment); Carcinoma, lung, small cell (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety; clumsiness; confusion; mental depression.**

VERTIGO: **dizziness.**

STOMACH: **nausea and vomiting** (usually mild to moderate; may be dose-limiting; usually do not occur until several days after initiation of treatment); *cramps, stomach; loss of appetite.*

ABDOMEN: *hepatotoxicity.*

RECTUM: *diarrhea.*

EXTREMITIES: **peripheral neuropathy** (numbness in arms or legs); *myelosuppression, mild to moderate.*

SKIN: *itching; skin rash.*

GENERALITIES: **anemia** (unusual tiredness); **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **neurotoxicity, including central nervous system (CNS) effects** (anxiety; clumsiness; confusion; dizziness; mental depression; weakness; seizures) (greater with daily high-dose therapy than with intermittent moderate-dose therapy; reversible on withdrawal); **neurotoxicity, including peripheral neuropathy** (numbness in arms or legs) (greater with daily high-dose therapy than with intermittent moderate-dose therapy; reversible on withdrawal);

seizures; thrombocytopenia (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); **weakness**; *myelosuppression, mild to moderate*.
DIAGNOSTIC TESTS: anemia (unusual tiredness); **leukopenia; thrombocytopenia**; *myelosuppression, mild to moderate*.

Amantadine (Systemic)

Commercial name(s): *Endantadine; Gen-Amantadine; Symmetrel*.

Category: Antiviral (systemic); antidyskinetic; antifatigue, specifically in multiple sclerosis.

Conventional indications: Influenza A (prophylaxis and treatment); Extrapyramidal reactions, drug-induced (treatment); Parkinsonism (treatment); Fatigue, multiple sclerosis-associated (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion* (usually only elderly patients, and patients with renal disease, seizure disorders, or altered mental/behavioral conditions); *amnesia* (loss of memory); *concentration, impaired*; *euphoria* (false sense of well-being); *nervousness*; *psychosis* (severe mood or mental changes); *slurred speech*; *suicidal ideation or attempts* (thoughts of suicide or attempts at suicide); aggressive behavior; agitation; anxiety; coma; delirium; depersonalization; disorientation; fear; hallucinations; lethargy; psychotic reactions.

VERTIGO: *orthostatic hypotension* (fainting); *dizziness*.

HEAD: *headache*.

EYE: *corneal deposits or other visual disturbances* (irritation and swelling of the eye; decreased vision or any change in vision).

VISION: *corneal deposits or other visual disturbances* (irritation and swelling of the eye; decreased vision or any change in vision).

MOUTH: *slurred speech*.

STOMACH: **gastrointestinal disturbances** (loss of appetite; nausea); *vomiting*.

ABDOMEN: **gastrointestinal disturbances** (loss of appetite; nausea).

RECTUM: *diarrhea*.

KIDNEYS: impairment, renal function.

GENITALIA MALE: *libido, decreased* (decrease in sexual desire).

GENITALIA FEMALE: *libido, decreased* (decrease in sexual desire).

RESPIRATION: *dyspnea* (shortness of breath); adult respiratory distress syndrome (cyanosis; quick, shallow breathing; shortness of breath).

CHEST: *congestive heart failure* (swelling of feet or lower legs; unexplained shortness of breath); arrhythmias, including malignant tachyarrhythmias; pulmonary edema; tachycardia (fast heartbeat).

EXTREMITIES: *edema, peripheral* (swelling of hands, feet, or lower legs); ataxia; gait abnormality; hypertonia.

SLEEP: *somnolence* (drowsiness); *insomnia*.

FEVER: hyperthermia.

SKIN: **livedo reticularis** (purplish red, net-like, blotchy spots on skin); *skin rash*.

GENERALITIES: *livedo reticularis* (purplish red, net-like, blotchy spots on skin); **toxicity, CNS** (agitation, anxiety, or nervousness; difficulty concentrating; difficulty in coordination; dizziness or lightheadedness; headache; insomnia; irritability; mental depression; nightmares; seizures); *anticholinergic-like effects* (blurred vision; confusion; constipation; dry mouth, nose, and throat; difficult urination; hallucinations) (especially in elderly patients, patients receiving higher doses, and patients with renal dysfunction); *edema, peripheral* (swelling of hands, feet, or lower legs); *fatigue* (unusual tiredness or weakness); *orthostatic hypotension* (fainting); *congestive heart failure* (swelling of feet or lower legs; unexplained shortness of breath); *hyperkinesia* (increase in body movements); *hypertension* (increased blood pressure); *leukopenia*; *neutropenia* (fever, chills, or sore throat); *weakness*; adult respiratory distress syndrome (cyanosis; quick, shallow breathing; shortness of breath); arrhythmias, including malignant tachyarrhythmias; ataxia; central nervous system effects (aggressive behavior; agitation; anxiety; ataxia; coma; confusion; delirium; depersonalization; disorientation; fear; gait abnormality; hallucinations; hypertonia; insomnia; lethargy; psychotic reactions; somnolence); hypertension; hyperthermia; hypertonia; seizures (may be exacerbated in patients with existing seizure disorders; usually only elderly patients, and patients with renal disease, seizure disorders, or altered mental/behavioral conditions); status epilepticus; tachycardia (fast heartbeat).
DIAGNOSTIC TESTS: *leukopenia*; *neutropenia* (fever, chills, or sore throat).

Amifostine (Systemic)

Commercial name(s): *Ethyol*.

Category: Antineoplastic adjunct; cytoprotective agent.

Conventional indications: Nephrotoxicity, cisplatin-induced (prophylaxis); Xerostomia, radiation-induced (prophylaxis); Bone marrow toxicity, antineoplastic agent-induced (prophylaxis); Neurotoxicity, cisplatin-induced (prophylaxis) Mucositis following chemotherapy; Mucositis following radiation therapy; Myelodysplastic syndrome (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *loss of consciousness, short term and reversible*.

VERTIGO: *dizziness*; *syncope* (fainting).

NOSE: *sneezing*.

FACE: *flushing or redness*.

EXTERNAL THROAT: *flushing or redness of neck*.

STOMACH: *nausea*; *vomiting*; *hiccups*.

KIDNEYS: *renal failure* (during or after hypotension).

LARYNX AND TRACHEA: *laryngeal edema*.

RESPIRATION: *apnea* (associated with hypotension); *arrest, respiratory* (during or after hypotension); *dyspnea* (may be associated with hypotension); *hypoxia* (may be associated with hypotension).

CHEST: *arrest, cardiac* (may occur during or after hypotension); *atrial fibrillation/flutter* (fast or irregular heartbeat; dizziness; fainting); *bradycardia* (associated with hypotension);

infarction, myocardial (during or after hypotension); *ischemia, myocardial* (associated with hypotension); *pain, chest* (associated with hypotension); *systoles, extra* (associated with hypotension); *tachycardia, supraventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations) (may sometimes be associated with hypotension or allergic reactions); *tightness, chest*.

SLEEP: *somnolence* (sleepiness, severe).

CHILL: *feeling unusually cold, chills/rigors*.

FEVER: *feeling unusually warm; fever*.

SKIN: *eruptions, cutaneous* (red, scaly, swollen, or peeling areas of skin); *cutaneous hypersensitivity, severe* (some cases have been fatal or have required hospitalization and/or discontinuance of therapy); *erythema multiforme*; *exfoliative dermatitis*; *toxic epidermal necrolysis*; *toxicodermia*; *urticaria*.

GENERALITIES: *allergic reactions* (fainting or loss of consciousness; fast or irregular breathing; swelling of eyes or eyelids; trouble in breathing; tightness in chest; wheezing; skin rash; itching); *hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); *flushing*; *hypertension, transient* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); *anaphylactoid reactions*; *bradycardia* (associated with hypotension); *convulsion* (associated with hypotension); *erythema multiforme*; *hypocalcemia* (burning or tingling sensation; muscle cramps); *infarction, myocardial* (during or after hypotension); *ischemia, myocardial* (associated with hypotension); *hypoxia* (may be associated with hypotension); *seizures* (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); *Stevens-Johnson syndrome*; *systoles, extra*; *tachycardia, supraventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations) (may sometimes be associated with hypotension or allergic reactions); *toxic epidermal necrolysis*.

DIAGNOSTIC TESTS: *hypocalcemia; hypoxia*.

Aminobenzoate Potassium (Systemic)

Commercial name(s): *Potaba; Potaba Envules; Potaba Powder*.

Category: Antifibrotic.

Conventional indications: Dermatomyositis, fibrosis and/or nonsuppurative inflammation in (treatment); Morphea, fibrosis and/or nonsuppurative inflammation in (treatment); Pemphigus, fibrosis and/or nonsuppurative inflammation in (treatment); Peyronie's disease, fibrosis and/or nonsuppurative inflammation in (treatment); Scleroderma, fibrosis and/or nonsuppurative inflammation in (treatment); Scleroderma, linear, fibrosis and/or nonsuppurative inflammation in (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: *anorexia* (loss of appetite); *nausea*.

GENERALITIES: *allergic reaction* (fever; skin rash); *hypoglycemia* (anxiety; chills; cold sweats; confusion; cool pale skin; difficulty in concentration; drowsiness; excessive hunger;

fast heartbeat; headache; nervousness; shakiness; unsteady walk; unusual tiredness or weakness)(may occur if aminobenzoate potassium therapy is continued through several days of inadequate food intake); leukopenia (fever and chills; sore throat).

DIAGNOSTIC TESTS: hypoglycemia; leukopenia.

Aminocaproic Acid (Systemic)

Commercial name(s): *Amicar*.

Category: Antifibrinolytic; antihemorrhagic.

Conventional indications: Hemorrhage, hyperfibrinolysis-induced (treatment); Hemorrhage, postsurgical (prophylaxis and treatment); Hemorrhage, oral, in patients with hemophilia (treatment); Hemorrhage, following dental and oral surgery, in patients with hemophilia (prophylaxis and treatment); Hemorrhage, subarachnoid, recurrence (prophylaxis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

EYE: watery eyes.

HEARING: ringing or buzzing in ears.

NOSE: stuffy nose.

STOMACH: cramps; nausea; vomiting.

RECTUM: diarrhea.

BLADDER: obstruction, bladder, caused by blood clot formation (decreased urination).

KIDNEYS: renal failure (sudden decrease in amount of urine; swelling of face, fingers, feet, or lower legs; rapid weight gain).

URINE: myoglobinuria.

GENITALIA MALE: dry ejaculation (in hemophilia patients).

GENITALIA FEMALE: menstrual discomfort, unusual (caused by clotting of menstrual fluid).

CHEST: heartbeat, slow or irregular (after too-rapid intravenous administration).

EXTREMITIES: myopathy (muscular pain or weakness, severe and continuing); thrombosis or thromboembolism (pains in chest, groin, or legs [especially calves]; severe, sudden headache; sudden and unexplained shortness of breath, slurred speech, vision changes, and/or weakness or numbness in arm or leg; sudden loss of coordination); rhabdomyolysis (with myoglobinuria and renal failure).

SKIN: skin rash.

GENERALITIES: coagulation; blood pressure, decrease in (may reach hypotensive levels); heartbeat, slow or irregular (after too-rapid intravenous administration); myopathy (muscular pain or weakness, severe and continuing); thrombosis or thromboembolism (pains in chest, groin, or legs [especially calves]; severe, sudden headache; sudden and unexplained shortness of breath, slurred speech, vision changes, and/or weakness or numbness in arm or leg; sudden loss of coordination); tiredness, unusual (with long-term

use or after too-rapid intravenous administration); *weakness, unusual* (after too-rapid intravenous administration); *rhabdomyolysis* (with myoglobinuria and renal failure).

DIAGNOSTIC TESTS: *myoglobinuria*.

Aminogluthimide (Systemic)

Commercial name(s): *Cytadren*.

Category: Antiadrenal; antineoplastic.

Conventional indications: Cushing's syndrome (treatment); Carcinoma, breast (treatment); Carcinoma, prostatic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *clumsiness, lethargy* (tiredness and weakness); *mental depression*.

VERTIGO: *dizziness*.

HEAD: *headache*.

FACE: *itching on face and/or palms of hands*.

EYE: *nystagmus* (uncontrolled eye movements).

EXTERNAL THROAT: *goiter* (neck tenderness or swelling); *hypothyroidism*.

STOMACH: *loss of appetite; nausea; vomiting*.

KIDNEYS: *hypoadrenalism*.

GENITALIA FEMALE: *masculinization and hirsutism in females* (deepening of voice; increased hair growth; irregular menstrual periods).

RESPIRATION: *alveolitis* (coughing; shortness of breath); respiratory depression (slowed breathing).

CHEST: *alveolitis* (coughing; shortness of breath).

EXTREMITIES: *itching on face and/or palms of hands, clumsiness; myalgia* (muscle pain); ataxia (difficulty walking).

SLEEP: *drowsiness*.

FEVER: *fever*.

SKIN: *skin rash, measles-like; eruptions*.

GENERALITIES: *hypoadrenalism; hypoglycemia* (dizziness); *hypotension, orthostatic or persistent* (chills; cold sweats; confusion; dizziness or lightheadedness, especially when getting up from a lying or sitting position; fast heartbeat; shakiness; slurred speech; unusual tiredness or weakness); *masculinization and hirsutism in females* (deepening of voice; increased hair growth; irregular menstrual periods); *myalgia* (muscle pain); *agranulocytosis* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *eosinophilia; hypersensitivity* (fever; yellow eyes or skin); *jaundice, cholestatic; hypothyroidism; leukopenia; thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); ataxia (difficulty walking); weakness, extreme.

DIAGNOSTIC TESTS: *hypoglycemia; agranulocytosis; aspartate aminotransferase, increased* (AST [SGOT]); *eosinophilia; leukopenia; thrombocytopenia*.

Aminoglycosides (Systemic)

Commercial name(s): *Amikin; G-Mycin; Garamycin; Jenamicin; Kantrex; Nebcin; Netromycin.*

Category: Antibacterial (systemic)-[Amikacin; Gentamicin; Kanamycin; Netilmicin; Streptomycin; Tobramycin]; Antibacterial (antimycobacterial)-[Streptomycin].

Conventional indications: Biliary tract infections (treatment)-[Amikacin, gentamicin, kanamycin, netilmicin, and tobramycin]; Bone and joint infections (treatment)-[Amikacin, gentamicin, kanamycin, netilmicin, and tobramycin]; Brucellosis (treatment)-[Streptomycin]; Central nervous system infections (including meningitis and ventriculitis) (treatment)-[Amikacin, gentamicin, kanamycin, netilmicin, and tobramycin]; Granuloma inguinale (treatment)-[Streptomycin]; Intra-abdominal infections (including peritonitis)(treatment)-[Amikacin, gentamicin, kanamycin, netilmicin, and tobramycin]; Plague (treatment)-[Streptomycin]; Pneumonia, gram-negative, bacterial (treatment)-[Amikacin, gentamicin, kanamycin, netilmicin, and tobramycin]; Septicemia, bacterial (treatment)-[Amikacin, gentamicin, kanamycin, netilmicin, and tobramycin]; Skin and soft tissue infections (including burn wound infections) (treatment)-[Amikacin, gentamicin, kanamycin, netilmicin, and tobramycin]; Tuberculosis (treatment)-[Streptomycin]; Tularemia (treatment)-[Streptomycin]; Urinary tract infections (recurrent complicated) (treatment)-[Amikacin, gentamicin, kanamycin, netilmicin, and tobramycin].

Primary Actions or Pathogenetic Symptoms

MIND: *clumsiness.*

VERTIGO: *dizziness.*

EYE: *optic neuritis* (any loss of vision)(streptomycin only).

VISION: *optic neuritis* (any loss of vision)(streptomycin only).

EAR: **ototoxicity, auditory** (any loss of hearing; ringing or buzzing, or a feeling of fullness in the ears); **ototoxicity, vestibular** (clumsiness; dizziness; nausea; vomiting; unsteadiness); *feeling of fullness in the ears.*

HEARING: **ototoxicity, auditory** (any loss of hearing; ringing or buzzing, or a feeling of fullness in the ears); *ringing; buzzing.*

STOMACH: *loss of appetite; thirst, increased; nausea; vomiting.*

BLADDER: *frequency of urination or amount of urine, greatly increased or decreased*

KIDNEYS: **nephrotoxicity** (greatly increased or decreased frequency of urination or amount of urine; increased thirst; loss of appetite; nausea; vomiting).

RESPIRATION: *respiratory paralysis.*

EXTREMITIES: **peripheral neuritis** (burning of face or mouth; numbness; tingling) [Streptomycin]; *clumsiness; leg cramps* (Gentamicin, administered concurrently by the systemic and intrathecal routes); *neuromuscular blockade* (difficulty in breathing; drowsiness; weakness); *unsteadiness.*

FEVER: *fever* (Gentamicin, administered concurrently by the systemic and intrathecal routes).

SKIN: *hypersensitivity* (skin itching, redness, rash, or swelling).

GENERALITIES: **neurotoxicity** (muscle twitching; numbness; seizures; tingling); *hypersensitivity* (skin itching, redness, rash, or swelling); *endotoxin-like reaction* (shaking;

chills; fever) [Gentamicin]; *neuromuscular blockade* (difficulty in breathing; drowsiness; weakness); *seizures* (Gentamicin, administered concurrently by the systemic and intrathecal routes).

Aminolevulinic Acid (Topical)

Commercial name(s): *Levulan; Kerastick*.

Category: Photosensitizer; Photodynamic therapy.

Conventional indications: Actinic keratoses, non-hyperkeratotic (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *photosensitivity*; **crusting**; **dysesthesia** (burning, crawling, itching, numbness, prickling, “pins and needles”, stinging, or tingling feelings); **edema** (swelling of skin); **erosion** (skin sore); **hypopigmentation** (lightening of treated skin); **scaling**; **wheal/flare** (small red raised itchy bumps); *bleeding or hemorrhage*; *excoriation* (raw skin); *oozing*; *pain*; *pustules* (pus filled blister; pimple); *scabbing*; *tenderness*; *ulceration* (open sore on skin); *vesiculation* (blister); *swelling*.

Aminosalicylate Sodium (Systemic)

Commercial name(s): *Nemasol Sodium; Tubasal*.

Category: Antibacterial (antimycobacterial).

Conventional indications: Tuberculosis (treatment).

Primary Actions or Pathogenetic Symptoms

EXTERNAL THROAT: *goiter or myxedema* (changes in menstrual periods; decreased sexual ability in males; dry, puffy skin; swelling of front part of neck; unusual weight gain) (with prolonged high-dose therapy).

STOMACH: **gastrointestinal disturbances** (abdominal pain; anorexia; diarrhea; nausea; vomiting).

ABDOMEN: **gastrointestinal disturbances** (abdominal pain; anorexia; diarrhea; nausea; vomiting).

URINE: *crystalluria* (lower back pain; pain or burning while urinating).

GENERALITIES: **hypersensitivity reaction** (eosinophilia; fever; joint pains; leukopenia; skin rash or itching; unusual tiredness or weakness); *anemia, hemolytic* (abdominal pain; backache; paleness of skin)(with G6PD deficiency); *hepatitis* (yellow eyes or skin); *jaundice* (yellow eyes or skin); *infectious mononucleosis-like syndrome* (fever; headache; skin rash; sore throat; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *anemia, hemolytic* (with G6PD deficiency); *crystalluria* (lower back pain; pain or burning while urinating).

Amiodarone (Systemic)

Commercial name(s): *Cordarone; Cordarone Intravenous; pms-Amiodarone.*

Category: Antiarrhythmic.

Conventional indications: Arrhythmias, ventricular (prophylaxis and treatment); Arrhythmias, supraventricular (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusional state* (mood or mental change); *delirium* (unusual excitement, nervousness, or restlessness; hallucinations; confusion as to time, place, or person; holding false beliefs that cannot be changed by fact); *disorientation* (confusion about identity, place, and time); *hallucinations* (seeing, hearing, or feeling things that are not there).

VERTIGO: *dizziness* (central nervous system [CNS] effect; hypotension is rare).

HEAD: *headache*; *pseudotumor cerebri* (blurred or double vision; dizziness; eye pain; severe headache; nausea, and vomiting).

EYE: *ocular toxicity* (blurred vision or blue-green halos seen around objects; dry eyes; sensitivity of eyes to light); *optic neuropathy and/or optic neuritis*; *corneal deposits, symptomatic*; *corneal deposits, bilateral and symmetric, asymptomatic* (appearing as yellow-brown pigmentation on slit-lamp examination); *macular degeneration*.

VISION: *ocular toxicity* (blurred vision or blue-green halos seen around objects; dry eyes; sensitivity of eyes to light); *blindness, permanent*; *corneal deposits, symptomatic*; *macular degeneration*; *peripheral vision, decreased*; *visual acuity, decreased*.

FACE: *blue-gray coloring of skin on face* (especially in patients with fair skin or with excessive sun exposure); *flushing*.

MOUTH: *bitter or metallic taste*.

EXTERNAL THROAT: *blue-gray coloring of skin on neck* (especially in patients with fair skin or with excessive sun exposure); *hyperthyroidism* (nervousness; sensitivity to heat; sweating; trouble in sleeping; weight loss); *hypothyroidism* (coldness; dry, puffy skin; unusual tiredness; weight gain).

STOMACH: *loss of appetite* (may lead to severe weight loss); **nausea; vomiting.**

ABDOMEN: *cirrhosis* (yellow eyes or skin); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: **constipation.**

KIDNEYS: *syndrome of inappropriate antidiuretic hormone secretion (SIADH)* (agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness).

GENITALIA MALE: *epididymitis, noninfectious* (chills; fever; pain in abdomen, groin, or scrotum; pain or burning with urination; swelling of scrotum); *sexual ability, decreased*; *sexual interest, decrease in*; *impotence* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection).

GENITALIA FEMALE: *sexual interest, decrease in.*

RESPIRATION: **pulmonary fibrosis or interstitial pneumonitis/alveolitis** (cough; painful breathing; shortness of breath; slight fever); *ARDS* (shortness of breath; tightness in chest; troubled breathing; wheezing); *arrest, respiratory* (no breathing); *bronchiolitis obliterans organizing pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of

breath; sore throat; troubled breathing; tightness in chest; wheezing); *bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *distress, respiratory* (shortness of breath; troubled breathing; tightness in chest; wheezing); *failure, respiratory* (blue lips, fingernails, or skin; difficult or troubled breathing; irregular, fast or slow, or shallow breathing; shortness of breath); *hypoxia* (confusion; dizziness; fast heartbeat; shortness of breath; weakness); *wheezing* (difficulty in breathing or troubled breathing).

COUGH: *cough; hemoptysis* (coughing or spitting up blood).

CHEST: **pulmonary fibrosis or interstitial pneumonitis/alveolitis** (cough; painful breathing; shortness of breath; slight fever); *arrhythmias, new or exacerbated* (fast or irregular heartbeat) (rebound effect?); *bradycardia, sinus* (slow heartbeat); *congestive heart failure* (swelling of feet or lower legs); *arrest, sinus; block, atrioventricular (AV); block heart; breath, shortness of; breathing, painful; bronchiolitis obliterans organizing pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); *bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); *fibrillation, ventricular; hemoptysis* (coughing or spitting up blood); *pleuritis* (chest pain; chills and fever; dry cough; troubled breathing); *pulmonary infiltrates* (cough; chest pain; unusual tiredness or weakness); *resistance to cardioversion, increased; tachycardia, paroxysmal ventricular; torsades de pointes*.

EXTREMITIES: **phlebitis, peripheral vein;** *blue-gray coloring of skin on arms* (especially in patients with fair skin or with excessive sun exposure); *muscle weakness; myopathy* (muscular pain, tenderness, wasting or weakness); *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness).

FEVER: *fever, slight*.

SKIN: **photosensitivity, particularly to long-wave ultraviolet-A [UVA] light** (sensitivity of skin to sunlight); *blue-gray coloring of skin on face, neck, and arms* (especially in patients with fair skin or with excessive sun exposure); *dermatitis, exfoliative* (cracks in the skin; loss of heat from the body; red, swollen skin; scaly skin); *pruritus* (itching skin); *toxic epidermal necrolysis* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *vasculitis* (redness, soreness or itching skin; fever; sores, welting or blisters); psoriasis, psoriasiform eruption [1].

GENERALITIES: **hypotension** (dizziness, lightheadedness, or fainting); **neurotoxicity** (trouble in walking; numbness or tingling in fingers or toes; trembling or shaking of hands; unusual and uncontrolled movements of body; weakness of arms or legs); **phlebitis, peripheral vein;** *arrhythmias, new or exacerbated* (fast or irregular heartbeat) (rebound effect?); *congestive heart failure* (swelling of feet or lower legs); *bradycardia, sinus* (slow heartbeat); *hyperthyroidism* (nervousness; sensitivity to heat; sweating; trouble in sleeping; weight loss); *hypothyroidism* (coldness; dry, puffy skin; unusual tiredness; weight gain); *allergic reaction* (skin rash); *anemia, aplastic* (chest pain; chills; cough; fever; headache; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen or painful

glands; tightness in chest; unusual bleeding or bruising; unusual tiredness or weakness; wheezing); *anemia, hemolytic* (back, leg, or stomach pains; bleeding gums; chills; dark urine; difficulty breathing; fatigue; fever; general body swelling; headache; loss of appetite; nausea or vomiting; nosebleeds; pale skin; sore throat; yellowing of the eyes or skin); *angioedema* (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs); *death*; *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *hepatitis* (yellow eyes or skin); *hepatitis, cholestatic* (abdominal or stomach pain; chills; clay-colored stools; dark urine; diarrhea; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *hypotension*; *hypoxia* (confusion; dizziness; fast heartbeat; shortness of breath; weakness); *myopathy* (muscular pain, tenderness, wasting or weakness); *neutropenia* (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *syndrome of inappropriate antidiuretic hormone secretion (SIADH)* (agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness); *tachycardia, paroxysmal ventricular*; *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *torsades de pointes*; *toxic epidermal necrolysis* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *anemia, aplastic; anemia, hemolytic; hypoxia; neutropenia; pancytopenia; thrombocytopenia.*

Complementary Bibliography: [1] Kim GK, Del Rosso JQ. Drug-provoked psoriasis: is it drug induced or drug aggravated? Understanding pathophysiology and clinical relevance. *J Clin Aesthet Dermatol* 2010; **3**(1): 32-38.

Amlexanox (Mucosal-Local)

Commercial name(s): *Aphthasol.*

Category: Antiulcer agent (topical).

Conventional indications: Stomatitis, aphthous (treatment).

Primary Actions or Pathogenetic Symptoms

MOUTH: *burning, stinging, or pain at application site; contact mucositis* (inflammation of mucous membranes).

STOMACH: *nausea*.

RECTUM: *diarrhea*.

Amlodipine (Systemic)

Commercial name(s): *Norvasc*.

Category: Antianginal; antihypertensive.

Conventional indications: Angina, chronic stable (treatment); Angina, vasospastic (treatment); Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

STOMACH: *nausea*.

ABDOMEN: *pain, abdominal*.

CHEST: *palpitations* (pounding heartbeat); *angina* (chest pain); *bradycardia* (slow heartbeat); tachycardia, reflex.

EXTREMITIES: *edema, peripheral* (swelling of ankles and feet) (higher prevalence in women than men).

SLEEP: *somnolence* (sleepiness or unusual drowsiness) (higher prevalence in women than men).

SKIN: *flushing* (higher prevalence in women than men).

GENERALITIES: *hypotension* (dizziness); *edema, peripheral* (swelling of ankles and feet) (higher prevalence in women than men); *flushing* (higher prevalence in women than men); *fatigue* (unusual tiredness or weakness); *palpitations* (pounding heartbeat); *bradycardia* (slow heartbeat); *hypotension, orthostatic* (dizziness or light-headedness when getting up from a lying or sitting position); *jaundice* (dark yellow urine; yellow eyes or skin); tachycardia, reflex.

Amlodipine and Atorvastatin (Systemic)

Commercial name(s): *Caduet*.

Category: Antianginal [Amlodipine]; antihyperlipidemic [Atorvastatin]; antihypertensive [Amlodipine]; HMG-CoA reductase inhibitor [Atorvastatin].

Conventional indications: Angina, chronic stable (treatment); Angina, vasospastic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: [Amlodipine]: *agitation* (anxiety; nervousness; restlessness; irritability; dry mouth; shortness of breath; hyperventilation; trouble sleeping; irregular heartbeats; shaking); *amnesia* (loss of memory; problems with memory); *apathy* (lack of feeling or emotion; uncaring).

HEAD: [Amlodipine]: *alopecia* (hair loss, thinning of hair); *migraine* (headache, severe and throbbing).

EYE: [Amlodipine]: *xerophthalmia* (dryness of eyes).

VISION: [Amlodipine]: *visual accommodation, abnormal* (blurred vision; change in near or distance vision; difficulty in focusing eyes).

NOSE: [Amlodipine]: *parosmia* (transient, mild, pleasant aromatic odor); *rhinitis* (stuffy nose; runny nose; sneezing).

MOUTH: [Amlodipine]: *taste perversion* (change in taste; bad, unusual or unpleasant (after) taste).

THROAT: [Atorvastatin]: pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: [Amlodipine]: *appetite, increased; gastritis* (burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion).

STOOL: [Amlodipine]: *stools, loose*.

BLADDER: [Amlodipine]: *dysuria* (difficult or painful urination; burning while urinating); *polyuria* (frequent urination; increased volume of pale, dilute urine).

COUGH: [Amlodipine]: *coughing*.

CHEST: [Amlodipine]: *cardiac failure* (chest pain or discomfort; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; weight gain; wheezing); *extrasystoles* (extra heartbeats); *irregularity, pulse*.

EXTREMITIES: [Amlodipine]: *ataxia* (shakiness and unsteady walk; unsteadiness; trembling, or other problems with muscle control or coordination); *hypertonia* (excessive muscle tone; muscle tension or tightness; muscle stiffness); *twitching; weakness, muscle, vasodilation, peripheral* (flushing). **[Atorvastatin]: arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving).

SKIN: [Amlodipine]: *alopecia* (hair loss, thinning of hair); *cold and clammy skin; dermatitis* (blistering, crusting, irritation, itching, or reddening of skin; cracked, dry, scaly skin; swelling); *discoloration* (change in color of skin); *dryness; urticaria* (hives or welts; itching; redness of skin; skin rash); peripheral vasodilation (flushing).

GENERALITIES: [Amlodipine]: *hypotension; alopecia* (hair loss, thinning of hair); *ataxia* (shakiness and unsteady walk; unsteadiness; trembling, or other problems with muscle control or coordination); *extrasystoles* (extra heartbeats); *hypertonia* (excessive muscle tone; muscle tension or tightness; muscle stiffness); *irregularity, pulse; vasodilation, peripheral* (flushing). **[Atorvastatin]: hypolipidemic effect.**

Amlodipine and Benazepril (Systemic)

Commercial name(s): *Lotrel*.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety* (fear; nervousness); *nervousness*.

VERTIGO: *dizziness*.

FACE: *hot flashes* (feeling of warmth; redness of the face).

MOUTH: *dry mouth*.

THROAT: *esophagitis* (difficulty in swallowing; pain or burning in throat; chest pain; heartburn; vomiting; sores, ulcers, or white spots on lips or tongue or inside the mouth); *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

EXTERNAL THROAT: *hot flashes* (feeling of warmth; redness of the neck).

STOMACH: *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); *nausea*.

ABDOMEN: *hepatic necrosis*, *fulminant*; *hepatotoxicity* (yellow eyes or skin); *pancreatitis* (abdominal pain and distention; fever; nausea; vomiting); *intestinal angioedema* (stomach pain); *pain, abdominal* (stomach pain).

RECTUM: *constipation* (difficulty having a bowel movement [stool]); *diarrhea*.

BLADDER: *polyuria* (frequent urination; increased volume of pale, dilute urine).

GENITALIA MALE: *decreased libido or impotence* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection).

LARYNX AND TRACHEA: *edema, laryngeal* (resulting in airway obstruction, can be fatal).

COUGH: *cough, dry and persistent*.

CHEST: *palpitations* (heartbeat sensations); tachycardia (rapid heartbeat).

BACK: *pain, back*.

EXTREMITIES: *cramps, muscle* (stomach pain); *hot flashes* (feeling of warmth; redness of the arms); *musculoskeletal pain* (muscle or bone pain).

SLEEP: *somnolence* (sleepiness); *insomnia* (sleeplessness; trouble sleeping; unable to sleep).

SKIN: *flushing* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest); *dermatitis* (blistering, crusting, irritation, itching, or reddening of skin; cracked, dry, scaly skin; swelling); *hot flashes* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest; sudden sweating); *nodule, skin* (small lump under the skin); *pemphigus* (blisters in the mouth followed by skin blisters on the trunk, scalp, or other areas); *rash*.

GENERALITIES: *hypotension* (dizziness, lightheadedness, or fainting); *edema, dependent* (swelling of ankles, feet, and lower legs); *flushing* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest); *hyperkalemia* (confusion; irregular heartbeat; nervousness; numbness or tingling in hands, feet, or lips; shortness of breath or difficulty breathing; weakness or heaviness of legs); *palpitations* (heartbeat sensations); *agranulocytosis* (chills; fever; sore throat); *anaphylactoid reactions* (severe, life-

threatening); *anemia, hemolytic* (bleeding gums; fatigue; nosebleeds; pale skin color)(more frequently in patients with renal function impairment); *angioedema* (sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet; hoarseness); *asthenia* (lack or loss of strength); *cramps; cramps, muscle* (stomach pain); *death; fatigue* (unusual tiredness or weakness); *hot flashes* (feeling of warmth; redness of the upper chest, occasionally); *jaundice, cholestatic; pancreatitis* (abdominal pain and distention; fever; nausea; vomiting); *Stevens-Johnson syndrome* (sudden onset of multiple skin lesions on the arms, feet, hands, legs, palms, mouth, and/or lips); *thrombocytopenia* (unusual bleeding or bruising); *tremor* (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet); tachycardia (rapid heartbeat).

DIAGNOSTIC TESTS: *hyperkalemia; agranulocytosis; anemia, hemolytic; bradykinin concentrations in plasma, increased; thrombocytopenia.*

Ammonia Spirit, Aromatic (Systemic)

Other commonly used names: Smelling salts.

Category: Respiratory stimulant.

Conventional indications: Syncope (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache.*

EYE: *burns* (may lead to blindness); *irritation.*

STOMACH: *vomiting.*

RECTUM: *diarrhea.*

RESPIRATION: *hyperventilation* (respiration, accelerated); *difficulty in breathing.*

COUGH: *cough.*

CHEST: lung damage, severe.

SKIN: *burns and irritation.*

Ammoniated Mercury (Topical)

Category: Antibacterial.

Conventional indications: Ammoniated mercury has been used for the topical treatment of impetigo contagiosa, dermatomycoses, superficial pyoderms, seborrheic dermatitis, psoriasis, and pediculosis pubis; however, it has been replaced by more effective and safer agents.

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache, continuing or severe.

MOUTH: gums, irritation, soreness, or swelling.

URINE: urine, cloudy.

SKIN: *hypersensitivity* (irritation not present before therapy); *skin infection; skin rash; redness of skin, unusual.*

DIAGNOSTIC TESTS: urine, cloudy.

Amphetamines (Systemic)

Commercial name(s): *Adderall; Adderall XR; Desoxyn; Desoxyn Gradumet; Dexedrine; Dexedrine Spansule; Dextrostat.*

Category: Central nervous system (CNS) stimulant.

Conventional indications: Attention-deficit hyperactivity disorder (treatment); Narcolepsy (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **agitation** (anxiety; nervousness; restlessness; irritability; dry mouth; shortness of breath; hyperventilation; trouble sleeping; irregular heartbeats; shaking); **emotional lability** (crying; depersonalization; dysphoria; euphoria; mental depression; paranoia; quick to react or overreact emotionally; rapidly changing moods); sexual desire, changes in; speech disorder (difficulty in speaking); psychotic reactions or toxic psychoses (mood or mental changes) (may occur following prolonged use or high doses); psychological dependence and tolerance (may occur following prolonged use or high doses).

VERTIGO: dizziness; lightheadedness.

HEAD: headache.

VISION: blurred vision.

MOUTH: dryness; speech disorder (difficulty in speaking); taste, unpleasant.

TEETH: tooth disorder.

STOMACH: cramps; loss of appetite; nausea; pain; vomiting; weight loss.

RECTUM: constipation; diarrhea.

BLADDER: urinary tract infection (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

GENITALIA MALE: impotence or libido decreased (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection); sexual ability, decreased; sexual desire, changes in.

GENITALIA FEMALE: dysmenorrhea (pain; cramps; heavy bleeding); sexual desire, changes in.

RESPIRATION: **hyperventilation** (respiration, accelerated); dyspnea (shortness of breath; difficult or labored breathing; tightness in chest wheezing).

CHEST: **heartbeat, irregular; tachycardia** (fast, pounding, or irregular heartbeat or pulse); pain, chest; cardiomyopathy (chest discomfort or pain; difficulty in breathing; dizziness or feeling faint; irregular or pounding heartbeat; unusual tiredness or weakness).

EXTREMITIES: twitching, Tourette's syndrome (uncontrolled movements of the head, neck, arms, and legs).

SLEEP: somnolence (sleepiness or unusual drowsiness) (rebound effect?).

FEVER: fever; hyperthermia (extremely high body temperature).

PERSPIRATION: sweating, increased.

SKIN: *photosensitivity reaction* (increased sensitivity of skin to sunlight; itching, redness or other discoloration of skin; severe sunburn; skin rash); *allergic reaction* (skin rash or hives).

GENERALITIES: *CNS stimulation* (false sense of well-being; irritability; nervousness; restlessness; trouble in sleeping); **heartbeat, irregular; tachycardia** (fast, pounding, or irregular heartbeat or pulse); *accidental injury; asthenia* (lack or loss of strength); *infection* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *infection, viral* (chills; cough or hoarseness; fever; cold flu-like symptoms); *allergic reaction* (skin rash or hives); *fatigue; hyperthermia* (extremely high body temperature); *tiredness or weakness, unusual* (rebound effect?); *Tourette's syndrome* (uncontrolled movements of the head, neck, arms, and legs); *trembling*; blood pressure, increased.

Secondary Actions or Rebound Effects: *somnolence* (sleepiness or unusual drowsiness); *mental depression; tiredness or weakness, unusual*.

Amphotericin B (Systemic)

Commercial name(s): *Amphocin; Fungizone Intravenous*.

Category: Antifungal (systemic); antiprotozoal.

Conventional indications: Aspergillosis (treatment); Blastomycosis (treatment); Candidiasis, disseminated (treatment); Coccidioidomycosis (treatment); Cryptococcosis (treatment); Endocarditis, fungal (treatment); Endophthalmitis, candidal (treatment); Histoplasmosis (treatment); Intra-abdominal infections (treatment); Leishmaniasis, American mucocutaneous (treatment); Meningitis, cryptococcal (treatment); Meningitis, cryptococcal (suppression); Meningitis, fungal, other (treatment); Mucormycosis (treatment); Septicemia, fungal (treatment); Sporotrichosis, disseminated (treatment); Urinary tract infections, fungal (treatment); Meningoencephalitis, primary amebic (treatment); Paracoccidioidomycosis (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: With intrathecal injection: *dizziness or lightheadedness*.

HEAD: With intravenous infusion: *headache*.

VISION: With intravenous infusion: *blurred or double vision*. With intrathecal injection: *blurred vision or any change in vision*.

EXTERNAL THROAT: With intrathecal injection: *pain, neck*.

STOMACH: With intravenous infusion: **gastrointestinal disturbance** (indigestion; loss of appetite; nausea; vomiting; diarrhea; stomach pain); **nausea and vomiting** (infusion-related reaction). With intrathecal injection: *nausea; vomiting*.

ABDOMEN: With intravenous infusion: **gastrointestinal disturbance** (indigestion; loss of appetite; nausea; vomiting; diarrhea; stomach pain).

BLADDER: With intrathecal injection: *urination, difficult*.

KIDNEYS: With intravenous infusion: **renal function impairment** (increased or decreased urination); **renal loss of potassium**.

CHEST: With intravenous infusion: arrhythmias, cardiac (irregular heartbeat) - usually with rapid infusion.

BACK: With intrathecal injection: pain.

EXTREMITIES: With intravenous infusion: polyneuropathy (numbness, tingling, pain, or weakness in hands or feet). With intrathecal injection: pain, leg.

CHILL: With intravenous infusion: chills (infusion-related reaction).

FEVER: With intravenous infusion: fever (infusion-related reaction).

GENERALITIES: With intravenous infusion: **anemia, normocytic or normochromic** (unusual tiredness or weakness); **hypokalemia** (irregular heartbeat; muscle cramps or pain; unusual tiredness or weakness); **hypotension** (infusion-related reaction); **thrombophlebitis** (pain at infusion site); arrhythmias, cardiac (irregular heartbeat) - usually with rapid infusion; hypersensitivity (skin rash; itching; shortness of breath; trouble in breathing; wheezing; tightness in chest); leukopenia (sore throat and fever); polyneuropathy (numbness, tingling, pain, or weakness in hands or feet); seizures; thrombocytopenia (unusual bleeding or bruising). With intrathecal injection: polyneuropathy (numbness, tingling, pain, or weakness).

DIAGNOSTIC TESTS: **anemia, normocytic or normochromic; hypokalemia; leukopenia; thrombocytopenia.**

Amphotericin B (Topical)

Commercial name(s): *Fungizone*

Category: Antifungal (topical).

Conventional indications: Topical amphotericin B has been used for the topical treatment of cutaneous and mucocutaneous candidiasis caused by *Candida (Monilia)* species.

Primary Actions or Pathogenetic Symptoms

SKIN: dryness of skin; hypersensitivity or local irritation, especially in intertriginous areas (burning, itching, redness or other signs of irritation not present before therapy); allergic contact dermatitis (skin rash).

Amphotericin B Cholesteryl Complex (Systemic)

Commercial name(s): *Amphotec*.

Category: Antifungal (systemic).

Conventional indications: Aspergillosis (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache (infusion-related).

STOMACH: nausea (infusion-related); nausea; vomiting.

RESPIRATION: hypoxia (infusion-related); dyspnea (difficulty in breathing); tachypnea (infusion-related).

CHEST: tachycardia (increased heartbeat).

CHILL: chills (infusion-related).

FEVER: fever (infusion-related).

GENERALITIES: **hypoxia** (infusion-related); *hypertension*; *hypotension* (dizziness or fainting); *tachycardia* (increased heartbeat); *thrombocytopenia* (unusual bleeding or bruising); *anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of feet or hands; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe).

DIAGNOSTIC TESTS: **hypoxia** (infusion-related); *thrombocytopenia*.

Amphotericin B Lipid Complex (Systemic)

Commercial name(s): *Abelcet*.

Category: Antifungal (systemic).

Conventional indications: Fungal infections, invasive (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache (infusion-related).

STOMACH: **gastrointestinal disturbance** (diarrhea; loss of appetite; nausea; stomach pain; vomiting); **nausea and vomiting** (infusion-related).

ABDOMEN: **gastrointestinal disturbance** (diarrhea; loss of appetite; nausea; stomach pain; vomiting).

KIDNEYS: *renal function impairment* (increased or decreased urination).

RESPIRATION: *respiratory distress* (difficulty in breathing); *bronchospasm*.

CHEST: *arrhythmias*; *bronchospasm*.

CHILL: **chills** (infusion-related).

FEVER: fever (infusion-related).

GENERALITIES: *anemia* (unusual tiredness and weakness); *leukopenia* (sore throat and fever); *thrombocytopenia* (unusual bleeding or bruising); *anaphylaxis*; *arrhythmias*; *hypotension*.

DIAGNOSTIC TESTS: *anemia*; *leukopenia*; *thrombocytopenia*.

Amphotericin B Liposomal Complex (Systemic)

Commercial name(s): *AmBisome*.

Category: Antifungal (systemic); antiprotozoal.

Conventional indications: Aspergillosis (treatment); Candidiasis (treatment); Cryptococcosis (treatment); Cryptococcal meningitis (treatment); Fungal infection, presumed, in febrile neutropenia (treatment); Leishmaniasis, visceral (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

EYE: *yellowing of eyes*.

STOMACH: nausea; vomiting.

ABDOMEN: pain, abdominal.

RECTUM: diarrhea.

URINE: urine, dark.

RESPIRATION: dyspnea (difficulty in breathing).

COUGH: cough.

CHEST: pain, chest; tightness, chest.

BACK: pain (with or without chest tightness, chest pain, and flushing).

CHILL: chills.

FEVER: fever.

SKIN: skin rash; yellowing of skin

GENERALITIES: hypokalemia (irregular heartbeat; muscle cramps or pain; unusual tiredness or weakness); *anaphylactic reaction* (difficulty in swallowing; hives; itching, especially of feet or hands; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *flushing*.

DIAGNOSTIC TESTS: hypokalemia; urine, dark.

Amprenavir (Systemic)

Commercial name(s): *Agenerase*.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus (HIV) infection (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: mood disorders (depression; mood or mental changes).

HEAD: headache.

FACE: oral paresthesia (burning or prickling sensation around the mouth).

MOUTH: taste disorders (change in taste; bad, unusual or unpleasant [after] taste).

STOMACH: gastrointestinal disturbances (abdominal pain; diarrhea; nausea; vomiting).

ABDOMEN: gastrointestinal disturbances (abdominal pain; diarrhea; nausea; vomiting).

BACK: *dorsocervical fat enlargement* (buffalo hump).

EXTREMITIES: paresthesia, peripheral (burning or prickling sensation in arms or legs).

SKIN: skin rash.

GENERALITIES: hypercholesterolemia (large amount of cholesterol in the blood); **hyperglycemia** (dry or itchy skin; fatigue; increased hunger; increased thirst; increased urination); **hypertriglyceridemia** (large amount of triglyceride in the blood); *fatigue* (unusual tiredness or weakness); *anemia, acute hemolytic* (back, leg, or stomach pains; bleeding gums; chills; dark urine; difficulty breathing; fatigue; fever; general body swelling; headache; loss of appetite; nausea or vomiting; nosebleeds; pale skin; sore throat; yellowing of the eyes or skin); *Cushing's Syndrome*; *Diabetes mellitus* (dry or itchy skin; fatigue; increased hunger; increased thirst; increased urination; unexplained weight loss); *Stevens-Johnson syndrome* (blistering, peeling, or loosening of skin and mucous membranes; fever; general feeling of discomfort or illness).

DIAGNOSTIC TESTS: hypercholesterolemia; hyperglycemia; hypertriglyceridemia; anemia, acute hemolytic.

Amsacrine (Systemic)

Commercial name(s): AMSA P-D.

Category: Antineoplastic.

Conventional indications: Leukemia, acute, adult (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: confusion; lethargy (unusual tiredness or weakness).

VERTIGO: dizziness.

HEAD: headache; alopecia (loss of hair).

EYE: jaundice (yellow eyes or skin).

MOUTH: mucositis or stomatitis (sores, ulcers, or white spots on lips, tongue, or inside mouth) - reported at higher doses for mucositis.

THROAT: dysphasia (difficulty swallowing).

STOMACH: nausea; vomiting; anorexia (loss of appetite); hematemesis (vomiting of blood or material that looks like coffee grounds).

ABDOMEN: pain, abdominal; hepatotoxicity (abdominal pain or tenderness; dark urine; itching; yellow eyes or skin) - usually transient.

RECTUM: abscess, perirectal (accumulation of pus or swollen, red, tender area of infection around the rectum); diarrhea.

CHEST: arrhythmia, ventricular (rapid or irregular heartbeat); tachycardia (fast, pounding, or irregular heartbeat or pulse; palpitations).

EXTREMITIES: pain, musculoskeletal (muscle or bone pain).

SKIN: alopecia (loss of hair); rash, purpuric or maculopapular; urticaria (hives or itching).

GENERALITIES: anemia (unusual tiredness or weakness); leukopenia (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); paresthesias (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); thrombocytopenia (black tarry stools; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); alopecia (loss of hair); arrhythmia, ventricular (rapid or irregular heartbeat); asthenia (loss of strength or energy; weakness); hypotension (blurred vision; confusion; dizziness, faintness, or light-headedness); jaundice (yellow eyes or skin); pancytopenia (diarrhea; fever; nausea; vomiting) - reported with prolonged therapy; phlebitis (pain or redness at site of injection); seizure; tachycardia (fast, pounding, or irregular heartbeat or pulse; palpitations).

DIAGNOSTIC TESTS: anemia; leukopenia; thrombocytopenia.

Amyl Nitrite (Systemic)

Commercial name(s): Aspiral; Vaporole.

Category: Antianginal; antidote (to cyanide poisoning); diagnostic aid (cardiac function).

Conventional indications: Angina pectoris, acute (treatment); Toxicity, cyanide (treatment); Cardiac function studies.

Primary Actions or Pathogenetic Symptoms

MIND: restlessness.

VERTIGO: **orthostatic hypotension** (dizziness or lightheadedness, especially when getting up from a lying or sitting position); dizziness, extreme; fainting.

HEAD: headache, mild; feeling of extreme pressure.

FACE: flushing.

EXTERNAL THROAT: flushing of neck.

STOMACH: nausea; vomiting.

RESPIRATION: cyanosis (bluish-colored lips, fingernails, or palms of hands); shortness of breath.

CHEST: tachycardia (fast pulse); weak and fast heartbeat.

EXTREMITIES: cyanosis (bluish-colored lips, fingernails, or palms of hands).

SKIN: skin rash.

GENERALITIES: flushing; **orthostatic hypotension** (dizziness or lightheadedness, especially when getting up from a lying or sitting position); tachycardia (fast pulse); anemia, hemolytic (unusual tiredness or weakness); cyanosis (bluish-colored lips, fingernails, or palms of hands); tiredness or weakness, unusual; weak and fast heartbeat.

DIAGNOSTIC TESTS: anemia, hemolytic.

Anabolic Steroids (Systemic)

Commercial name(s): Anadrol-50; Anapolon 50; Deca-Durabolin; Durabolin; Durabolin-50; Hybolin Decanoate; Hybolin-Improved; Kabolin; Oxandrin; Winstrol.

Category: Anabolic steroid [Nandrolone; Oxandrolone; Oxymetholone; Stanozolol]; antianemic [Nandrolone; Oxymetholone; Stanozolol]; antineoplastic [Nandrolone]; antiangioedema (hereditary) agent [Oxymetholone; Stanozolol]

Conventional indications: Catabolic or tissue-depleting processes (treatment) [Nandrolone decanoate, stanozolol]; Anemia (treatment) [Nandrolone decanoate; Nandrolone phenpropionate; Oxymetholone; Stanozolol]; Carcinoma, breast (treatment) [Nandrolone decanoate; Nandrolone phenpropionate]; Angioedema, hereditary (prophylaxis) [Stanozolol; Oxymetholone]; Angioedema, hereditary (treatment) [Stanozolol; Oxymetholone]; Antithrombin III deficiency (treatment) or Fibrinogen excess (treatment) [Stanozolol]; Growth failure (treatment adjunct); Turner's syndrome (treatment) [Oxandrolone].

Primary Actions or Pathogenetic Symptoms

STOMACH: feeling of fullness; gastric irritation (nausea; vomiting).

ABDOMEN: feeling of fullness; hepatic dysfunction (yellow eyes or skin); hepatic necrosis (black, tarry stools; continuing feeling of discomfort; continuing headache; continuing unpleasant breath odor; vomiting of blood) - with prolonged therapy; hepatocellular carcinoma (abdominal or stomach pain; unexplained weight loss) - associated with long-term, high-dose anabolic steroid therapy; peliosis hepatis (continuing loss of appetite; dark-colored urine; fever; hives; light-colored stools; nausea and vomiting;

purple- or red-colored spots on body or inside the mouth or nose; sore throat) - associated with long-term, high-dose anabolic steroid therapy; hepatotoxicity.

RECTUM: *diarrhea*.

BLADDER: **bladder irritability** (frequent urge to urinate) (in postpubertal males).

PROSTATE GLAND: *carcinoma or hyperplasia, prostatic* (difficult or frequent urination) (in geriatric male).

GENITALIA MALE: **priapism** (frequent or continuing erections) (in postpubertal males); **virilism in prepubertal males** (acne; enlarging penis; increased frequency of erections; unnatural hair growth); *libido, decrease or increase in; sexual ability, decreased*.

GENITALIA FEMALE: **virilism** (acne or oily skin; enlarging clitoris; hoarseness or deepening of voice; menstrual irregularities; unnatural hair growth or loss); *libido, decrease or increase in*.

CHEST: **breast soreness** (in postpubertal males); **gynecomastia** (enlargement of breasts) (in postpubertal males).

EXTREMITIES: *cramps, muscle; epiphyseal closure, premature* (lack or slowing of normal growth in children).

SLEEP: *trouble in sleeping*.

CHILL: *chills*.

SKIN: **acne** (in males); *darkening of skin, unexplained* (in prepubertal males).

GENERALITIES: **virilism in females** (acne or oily skin; enlarging clitoris; hoarseness or deepening of voice; menstrual irregularities; unnatural hair growth or loss); **virilism in prepubertal males** (acne; enlarging penis; increased frequency of erections; unnatural hair growth); *anemia, iron deficiency* (loss of appetite; sore tongue); *cramps, muscle; edema* (swelling of feet or lower legs; rapid weight gain); *leukemia* (bone pain); *suppression of clotting factors* (unusual bleeding); *epiphyseal closure, premature* (lack or slowing of normal growth in children); *hepatocellular carcinoma* (abdominal or stomach pain; unexplained weight loss) - associated with long-term, high-dose anabolic steroid therapy; *peliosis hepatis* (continuing loss of appetite; dark-colored urine; fever; hives; light-colored stools; nausea and vomiting; purple- or red-colored spots on body or inside the mouth or nose; sore throat) - associated with long-term, high-dose anabolic steroid therapy.

DIAGNOSTIC TESTS: *anemia, iron deficiency; hypercalcemia* (mental depression; nausea; vomiting; unusual tiredness) (in females); *suppression of clotting factors* (unusual bleeding).

Anagrelide (Systemic)

Commercial name(s): *Agrylin*.

Category: Platelet count-reducing agent.

Conventional indications: Thrombocythemia (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; mental depression; nervousness*.

VERTIGO: **dizziness**.

Materia Medica - Letter A

HEAD: **headache**; alopecia (loss of hair); cerebrovascular accident (sudden severe headache or weakness).

EYE: sensitivity to light, unusual.

VISION: blurred or double vision.

HEARING: ringing in the ears.

NOSE: rhinitis (stuffy or runny nose).

MOUTH: aphthous stomatitis (canker sore).

STOMACH: **dyspepsia** (heartburn); **flatulence** (gas or bloating of stomach); **nausea**; **pain**; loss of appetite; vomiting.

ABDOMEN: **flatulence** (gas or bloating of stomach); **pain, abdominal.**

RECTUM: **diarrhea**; constipation.

BLADDER: dysuria (painful or difficult urination).

KIDNEYS: renal abnormalities.

URINE: hematuria (blood in urine).

RESPIRATION: **pulmonary infiltrates or pulmonary fibrosis** (shortness of breath); asthma, bronchitis, or pneumonia (difficulty in breathing; shortness of breath).

CHEST: **palpitations**; **pulmonary infiltrates or pulmonary fibrosis** (shortness of breath); asthma, bronchitis, or pneumonia (difficulty in breathing; shortness of breath); atrial fibrillation (rapid or irregular heartbeat); cardiomegaly; cardiomyopathy; complete heart block; congestive heart failure (shortness of breath; swelling of feet or lower legs; unusual tiredness or weakness); myocardial infarction (anxiety; cold sweating; increased heart rate; nausea or vomiting; severe pain or pressure in the chest and/or the jaw, neck, back, or arms; shortness of breath); pericarditis.

BACK: pain.

EXTREMITIES: arthralgia (joint pain); leg cramps; myalgia (muscle pain); paresthesias (numbness or tingling in hands or feet).

SLEEP: insomnia (trouble in sleeping); somnolence (sleepiness).

CHILL: chills.

FEVER: fever.

SKIN: alopecia (loss of hair); itching; skin rash.

GENERALITIES: **asthenia** (weakness); **pain**; **palpitations**; alopecia (loss of hair); arthralgia (joint pain); atrial fibrillation (rapid or irregular heartbeat); congestive heart failure (shortness of breath; swelling of feet or lower legs; unusual tiredness or weakness); malaise (general feeling of discomfort or illness); myalgia (muscle pain); myocardial infarction (anxiety; cold sweating; increased heart rate; nausea or vomiting; severe pain or pressure in the chest and/or the jaw, neck, back, or arms; shortness of breath); paresthesias (numbness or tingling in hands or feet); vasodilation (flushing; faintness); bleeding; CNS toxicity.

DIAGNOSTIC TESTS: hematuria.

Secondary Actions or Rebound Effects: thrombocytopenia (unusual bleeding or bruising).

Anakinra (Systemic)

Commercial name(s): *Kineret*.

Category: Antirheumatic; Biological response modifier.

Conventional indications: Arthritis, rheumatoid (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

NOSE: sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

STOMACH: nausea.

ABDOMEN: pain, abdominal.

RECTUM: diarrhea.

RESPIRATION: upper respiratory tract infection (cough; fever; sneezing or sore throat).

CHEST: pneumonia (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

EXTREMITIES: bone and joint infection (pain in the bone or joint; swelling; tenderness or warmth on skin; fever).

SKIN: cellulitis (itching; pain; redness; swelling; tenderness or warmth on skin).

GENERALITIES: bone and joint infection (pain in the bone or joint; swelling; tenderness or warmth on skin; fever); influenza-like symptoms (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); injection site reaction (redness or purple discoloration of skin; inflammation; pain); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); upper respiratory tract infection (cough; fever; sneezing or sore throat); hypersensitivity reactions (itching; rash; hives; swelling of face or lips; tightness in chest; wheezing or troubled breathing); neutropenia (black, sticky stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness).

DIAGNOSTIC TESTS: neutropenia.

Anastrozole (Systemic)

Commercial name(s): *Arimidex*.

Category: Antineoplastic.

Conventional indications: Carcinoma, breast (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: depression (mood or mental changes); anxiety; confusion; nervousness.

VERTIGO: dizziness.

HEAD: headache; alopecia (loss of hair).

NOSE: rhinitis (stuffy nose); sinusitis.

MOUTH: dry mouth.

THROAT: pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: anorexia (loss of appetite; weight loss); **appetite, increased;** nausea; vomiting.

ABDOMEN: pain, abdominal; pain, pelvic.

RECTUM: constipation; diarrhea.

GENITALIA FEMALE: dryness, vaginal; hemorrhage, vaginal (heavy vaginal bleeding).

RESPIRATION: dyspnea (shortness of breath); bronchitis (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing).

COUGH: cough.

CHEST: pain, chest; bronchitis (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); pain, breast.

BACK: pain.

EXTREMITIES: bone pain; edema, peripheral (swelling of feet or lower legs); arthralgia (joint pain); myalgia (muscle pain); paresthesia (numbness or tingling sensation of hands and feet); thrombophlebitis (pain or tenderness in leg or foot; blue color in leg or foot; swelling of leg or foot); joint pain and stiffness.

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep); somnolence (sleepiness or unusual drowsiness).

PERSPIRATION: sweating.

SKIN: skin rash; alopecia (loss of hair); pruritus (itchy skin); erythema multiforme (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); urticaria (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: asthenia (weakness); edema, peripheral (swelling of feet or lower legs); flushing (feeling of warmth; redness of face and neck); hot flashes; pain; alopecia (loss of hair); anemia (unusual tiredness or weakness); arthralgia (joint pain); flu syndrome (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); hypertension (dizziness, severe; continuing headache); leukopenia, with or without infection (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination; sore throat); myalgia (muscle pain); paresthesia (numbness or tingling sensation of hands and feet); sinusitis; thromboembolism (sudden shortness of breath); thrombophlebitis (pain or tenderness in leg or foot; blue color in leg or foot; swelling of leg or foot); weight gain; anaphylaxis (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); angioedema (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs); erythema multiforme (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever;

itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *anemia*; *leukopenia*.

Androgens (Systemic)

Commercial name(s): *Andriol*; *Andro L.A. 200*; *AndroGel*; *Androderm*; *Android*; *Android-F*; *Andronate 100*; *Andronate 200*; *Andropository 200*; *Andryl 200*; *Delatest*; *Delatestyl*; *Depo-Testosterone*; *Depo-Testosterone Cypionate*; *Depotest*; *Everone 200*; *Halotestin*; *Malogen in Oil*; *Metandren*; *ORETON Methyl*; *Scheinpharm Testone-Cyp*; *T-Cypionate*; *Testamone 100*; *Testaqua*; *Testex*; *Testoderm*; *Testoderm TTS*; *Testoderm with Adhesives*; *Testopel Pellets*; *Testred*; *Testred Cypionate 200*; *Testrin-P.A*; *Virilon*; *Virilon IM*.

Category: Androgen [Fluoxymesterone; Methyltestosterone; Testosterone; Testosterone Undecanoate]; Antineoplastic [Fluoxymesterone; Methyltestosterone; Testosterone]; Antianemic [Fluoxymesterone; Testosterone Cypionate; Testosterone Enanthate].

Conventional indications: Androgen deficiency, due to primary or secondary hypogonadism (treatment); Puberty, delayed male (treatment); Carcinoma, breast (treatment); Anemia (treatment); Constitutional delay in growth (treatment); Gender change, female-to-male; Lichen sclerosus (treatment adjunct); Microphallus (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *mannish* (habits and characteristics masculine); *emotional lability* (crying; depersonalization; dysphoria; euphoria; mental depression; paranoia; quick to react or overreact emotionally; rapidly changing moods); *nervousness*; *depression* (mood or mental changes) (more likely with oral or injection dosage forms, usually associated with long-term use or high doses); *aggressive or violent behavior* (self-administered supraphysiologic doses in athletes).

HEAD: *alopecia* (hair loss; thinning of hair); *headache*; cerebrovascular accident (blurred vision; headache; sudden and severe inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe).

STOMACH: *bleeding, gastrointestinal, in males* (black, tarry stools; vomiting of blood or material that looks like coffee grounds); *irritation, gastrointestinal* (nausea; vomiting); *pain*.

ABDOMEN: *bleeding, gastrointestinal, in males* (black, tarry stools; vomiting of blood or material that looks like coffee grounds); *irritation, gastrointestinal* (nausea; vomiting); *hepatic necrosis* (abdominal or stomach pain, continuing; black, tarry stools; headache, continuing; malaise, continuing; unpleasant breath odor, continuing; vomiting of blood) (more likely with oral or injection dosage forms, usually associated with long-term use or high doses); *hepatocellular tumor* (pain or tenderness in upper abdomen; swelling of abdomen) (more likely with oral or injection dosage forms, usually associated with long-term use or high doses); *peliosis hepatis* (continuing loss of appetite; darkened urine; fever;

hives; light-colored stools; nausea; purple or red spots on body or inside the mouth or nose; sore throat; vomiting).

RECTUM: bleeding, gastrointestinal, in males (black, tarry stools; vomiting of blood or material that looks like coffee grounds); diarrhea.

BLADDER: **bladder irritability or urinary tract infection, in males** (frequent urge to urinate).

KIDNEYS: **urinary tract infection, in males** (frequent urge to urinate).

PROSTATE GLAND: prostatic hyperplasia, benign (difficulty urinating).

GENITALIA MALE: **penile erections, frequent or continuing** (penile erections lasting up to 4 hours); **priapism** (painful erections lasting longer than 4 hours) - sign of excessive dosage; **virilism in prepubertal males** (acne; enlargement of penis; frequent or continuing erections; early growth of pubic hair); epididymitis, acute, nonspecific (chills; pain in scrotum or groin); libido, decrease or increase in; pubic hair growth, increase in; testicular atrophy (decrease in testicle size) - usually associated with high doses for oral or injection dosage forms; testis disorder.

GENITALIA FEMALE: **amenorrhea or oligomenorrhea** (absence of or unusual menstrual periods); **virilism** (acne; decreased breast size; enlarged clitoris; hoarseness or deepening of voice; male pattern baldness; oily skin; unnatural and excessive hair growth); libido, decrease or increase in; pubic hair growth, increase in.

CHEST: **breast soreness, in males; gynecomastia, in males** (enlargement of breasts); pain, breast.

EXTREMITIES: edema (rapid weight gain; swelling of feet or lower legs).

SLEEP: trouble in sleeping.

SKIN: **blistering of skin, local, in males; erythema or pruritus, local, in males** (itching of skin under skin patch, mild to severe; redness of skin under patch or at implant insertion site, mild to severe); acne, mild; contact dermatitis, allergic, in males (itching and redness of skin, severe; skin rash, severe) (with use of testosterone transdermal system) (reservoir-type); alopecia (hair loss; thinning of hair); induration, local, in males (hardening or thickening of skin under patch) (with use of testosterone transdermal system) (reservoir-type); infection, pain, redness, swelling, sores or other skin irritation, local, in males—for transdermal systems.

GENERALITIES: **mannish** (habits and characteristics masculine); **virilism in females** (acne; decreased breast size; enlarged clitoris; hoarseness or deepening of voice; male pattern baldness; oily skin; unnatural and excessive hair growth); **virilism in prepubertal males** (acne; enlargement of penis; frequent or continuing erections; early growth of pubic hair); alopecia (hair loss; thinning of hair); asthenia (lack or loss of strength); burning sensation at transdermal application site, in males; edema (rapid weight gain; swelling of feet or lower legs); erythrocytosis or secondary polycythemia (dizziness; flushing or redness of skin; headache, frequent or continuing; unusual bleeding; unusual tiredness) - in severe cases using oral or injection dosage forms; hypertension (high blood pressure); infection, pain, redness or other irritation at site of injection - for intramuscular injection only; jaundice, cholestatic (yellow eyes or skin; itching of skin) - more likely with the oral methylated androgens; pain at implant insertion site, continuing, in males - for subcutaneous implants; hepatocellular tumor (pain or tenderness in upper abdomen; swelling of abdomen) (more likely with oral or injection dosage forms, usually associated

with long-term use or high doses); *leukopenia* (fever; sore throat) (more likely with oral or injection dosage forms, usually associated with long-term use or high doses); *peliosis hepatis* (continuing loss of appetite; darkened urine; fever; hives; light-colored stools; nausea; purple or red spots on body or inside the mouth or nose; sore throat; vomiting) (more likely with oral or injection dosage forms, usually associated with long-term use or high doses).

DIAGNOSTIC TESTS: erythrocytosis or secondary polycythemia; hypercalcemia; leukopenia.

Anesthetics (Mucosal-Local)

Commercial name(s): *Americaine; Americaine Anesthetic Lubricant; Americaine Hemorrhoidal; Anbesol Baby Jel; Anbesol Gel; Anbesol Liquid; Anbesol Maximum Strength Gel; Anbesol Maximum Strength Liquid; Anbesol Regular Strength Gel; Anbesol Regular Strength Liquid; Anbesol, Baby; Anestacon Jelly; Benzodent; Cetacaine Topical Anesthetic; Chloraseptic Lozenges; Chloraseptic Lozenges Cherry Flavor; Chloraseptic Lozenges, Children's; Dent-Zel-Ite; Dentapaine; Dentocaine; Dyclone; Fleet Relief; Hurricaine; Num-Zit Gel; Num-Zit Lotion; Numzident; Nupercainal; Orabase, Baby; Orabase-B with Benzocaine; Orajel; Orajel Extra Strength; Orajel Liquid; Orajel Maximum Strength; Orajel Nighttime Formula, Baby; Orajel, Baby; Oratect Gel; Pontocaine; Pontocaine Cream; Pontocaine Ointment; ProctoFoam/non-steroid; Rid-A-Pain; SensoGARD Canker Sore Relief; Spec-T Sore Throat Anesthetic; Sucrets Maximum Strength; Sucrets Regular Strength; Sucrets, Children's; Topicaïne; Tronolane; Tronothane; Xylocaine; Xylocaine Dental Ointment; Xylocaine Endotracheal; Xylocaine Viscous; Zilactin-L.*

Category: Anesthetic (mucosal-local).

Conventional indications: Anesthesia, local; Gag reflex suppression; Anorectal disorders (treatment); Inflammation, anorectal; Pain, anorectal; Pain, anogenital lesion; Pain, anogenital, external; Pruritus, anogenital; Oral cavity disorders (treatment); Perioral lesions (treatment); Pain, gingival or oral mucosal; Pain, dental prosthetic; Pain, teething; Toothache; Pain, esophageal (treatment); Pain, pharyngeal (treatment); Pain, vaginal (treatment); Urethritis (treatment).

Primary Actions or Pathogenetic Symptoms

MOUTH: angioedema (large, hive-like swellings in mouth).

THROAT: angioedema (large, hive-like swellings in throat).

URETHRA: urethritis (blood in urine, increased frequency of urination, pain or burning during urination).

RESPIRATION: respiratory arrest.

CHEST: cardiovascular system depression (increased sweating, low blood pressure, pale skin, slow or irregular heartbeat) - may lead to cardiac arrest.

SKIN: contact dermatitis, allergic (skin rash, redness, itching, or hives).

GENERALITIES: anesthesia; angioedema (large, hive-like swellings on skin or in mouth or throat); burning, stinging, swelling, or tenderness not present before therapy;

idiosyncrasy; cardiovascular system depression (increased sweating, low blood pressure, pale skin, slow or irregular heartbeat) - may lead to cardiac arrest; CNS toxicity (blurred or double vision; confusion; convulsions; dizziness or lightheadedness; drowsiness; feeling hot, cold, or numb; ringing or buzzing in ears; shivering or trembling; unusual anxiety, excitement, nervousness, or restlessness); methemoglobinemia (difficulty in breathing on exertion, dizziness, headache, tiredness, weakness).

DIAGNOSTIC TESTS: methemoglobinemia.

Anesthetics (Ophthalmic)

Commercial name(s): *Ak-T-Caine; Ak-Taine; Alcaine; Diocaine; Minims Tetracaine; Ocu-Caine; Ophthaine; Ophthetic; Opticaine; Pontocaine; Spectro-Caine.*

Category: Anesthetic, local (ophthalmic).

Conventional indications: Anesthesia, local.

Primary Actions or Pathogenetic Symptoms

MIND: *anesthesia* (unconsciousness).

EYE: *anesthesia; burning, stinging, redness, or other irritation of eye, mild* [several hours after application of Proparacaine; upon application of Tetracaine]; *allergic reaction* (itching, pain, redness, or swelling of eye or eyelid, severe; watering of eyes, severe and continuing); *appearance, gray ground-glass* [Proparacaine]; *corneal filaments* [Proparacaine]; *corneal epithelial healing, delay in; epithelial keratitis, acute intense and diffuse* [Proparacaine]; *hypersensitivity reaction, delayed* (softening and erosion of the corneal epithelium, conjunctival congestion, and hemorrhage) [Proparacaine]; *hypersensitivity reactions, local* [Tetracaine]; *hypersensitivity reaction, severe and immediate* [Proparacaine]; *iritis with descemetitis* [Proparacaine]; *keratitis, severe* (with prolonged use); *necrotic epithelium, sloughing of large areas of* [Proparacaine]; *opacification, corneal, permanent; scarring, corneal; sensitivity reactions* (to the preservatives present in ophthalmic formulations).

VISION: *visual acuity, loss of.*

CHEST: *heartbeat, irregular.*

EXTREMITIES: *allergic contact dermatitis* (drying and fissuring of the fingertips).

PERSPIRATION: *sweating, increased.*

SKIN: *paleness, unusual.*

GENERALITIES: *CNS depression* (drowsiness; shortness of breath or troubled breathing) - may follow CNS stimulation; *CNS stimulation* (blurred vision; convulsions; dizziness; muscle twitching or trembling; nausea or vomiting; unusual excitement, nervousness, or restlessness); *heartbeat, irregular; paleness, unusual; tiredness or weakness, unusual.*

Anesthetics (Parenteral-Local)

Commercial name(s): *Astracaine 4%; Astracaine 4% Forte; Carbocaine; Carbocaine with Neo-Cobefrin; Chirocaine; Citanest Forte; Citanest Plain; Dalcaine; Dilocaine; Duranest; Duranest-MPF; Isocaine; Isocaine 2%; Isocaine 3%; L-Caine; Lidoject-1; Lidoject-2;*

Marcaïne; Marcaïne Spinal; Nesacaine; Nesacaine-CE; Nesacaine-MPF; Novocain; Octocaine; Octocaine-100; Octocaine-50; Polocaine; Polocaine-MPF; Pontocaine; Sensorcaine; Sensorcaine Forte; Sensorcaine-MPF; Sensorcaine-MPF Spinal; Septocaine; Ultracaine D-S; Ultracaine D-S Forte; Xyllocaine; Xyllocaine 5% Spinal; Xyllocaine Test Dose; Xyllocaine-MPF; Xyllocaine-MPF with Glucose.

Category: Anesthetic (local).

Conventional indications: Central neural blocks [*Caudal or lumbar epidural:* Bupivacaine (with or without Epinephrine), Chloroprocaine, Etidocaine (with or without Epinephrine), Lidocaine (with or without Epinephrine), Levobupivacaine, and Mepivacaine; *Subarachnoid:* Bupivacaine and Dextrose, Lidocaine and Dextrose, Procaine, and Tetracaine (with or without Dextrose)]; Dental infiltration or nerve block [Articaine with Epinephrine; Bupivacaine and Epinephrine; Chloroprocaine (with or without added Epinephrine); Etidocaine and Epinephrine; Lidocaine (with or without Epinephrine); Mepivacaine (with or without Levonordefrin); Prilocaine (with or without epinephrine)]; Intravenous regional anesthesia (Bier block) [Chloroprocaine, Lidocaine, and Mepivacaine]; Local infiltration [Bupivacaine (with or without Epinephrine), Chloroprocaine, Etidocaine (with or without Epinephrine), Levobupivacaine, Lidocaine (with or without Epinephrine), Mepivacaine, and Procaine]; Peripheral nerve block [Bupivacaine (with or without Epinephrine), Chloroprocaine, Etidocaine (with or without Epinephrine), Levobupivacaine, Lidocaine (with or without Epinephrine), Mepivacaine, and Procaine; *Retrobulbar block:* Bupivacaine, Etidocaine, Lidocaine, and Procaine]; Sympathetic block [Bupivacaine (with or without Epinephrine) and Lidocaine (with or without Epinephrine)]; Transtracheal [Lidocaine, Mepivacaine, and Tetracaine].

Primary Actions or Pathogenetic Symptoms

MIND: restlessness - may be caused by vasoconstrictor added to local anesthetic.

VERTIGO: dizziness.

HEAD: headache.

FACE: hives (raised red swellings on the lips); muscles, facial, trismus of (difficulty in opening the mouth) - may occur when an anesthetic is used for dental anesthesia; numbness or tingling of lips and mouth, prolonged - may occur when an anesthetic is used for dental anesthesia.

MOUTH: hives (raised red swellings on the tongue); numbness or tingling of lips and mouth, prolonged - may occur when an anesthetic is used for dental anesthesia.

THROAT: hives (raised red swellings in the throat).

STOMACH: nausea; vomiting.

RECTUM: constipation; incontinence, fecal and/or urinary (inability to hold bowel movement and/or urine).

BLADDER: incontinence, urinary and/or fecal (inability to hold urine and/or bowel movement).

GENITALIA MALE: impotence (loss of sexual function).

RESPIRATION: paralysis, respiratory (inability to breath without assistance); apnea.

CHEST: bradycardia (dizziness); cardiac arrhythmias (irregular heartbeat); pain, chest (may be sympathomimetic effect caused by vasoconstrictor added to local anesthetic, or

may be caused by decreased perfusion resulting from hypotension); tachycardia (rapid heart rate) - may be caused by vasoconstrictor added to local anesthetic.

BACK: pain.

EXTREMITIES: paralysis of legs - may indicate *cauda equina syndrome*, *motor and sensory block* (following subarachnoid administration of local anesthetics, or following inadvertent subarachnoid administration during intended performance of a peridural block).

SLEEP: drowsiness.

FEVER: fever; hypothermia (shivering).

SKIN: hives (raised red swellings on the skin); pruritus (itching); skin rash.

GENERALITIES: anesthesia; anemia (pale skin; troubled breathing, exertional; unusual bleeding or bruising; unusual tiredness or weakness); bradycardia (dizziness); cardiac arrhythmias (irregular heartbeat); hives (raised red swellings on the skin, lips, tongue, or in the throat); hypertension (may be sympathomimetic effect caused by vasoconstrictor added to local anesthetic); hypotension (dizziness); hypothermia (shivering); methemoglobinemia (bluish lips and fingernails; breathing problems; dizziness; fatigue; headache; rapid heart rate; weakness); paresthesias (tingling or “pins and needles” sensation) - may indicate *cauda equina syndrome*; seizures (convulsions); tachycardia (rapid heart rate) - may be caused by vasoconstrictor added to local anesthetic; vasodilation, peripheral (dizziness); anaphylactoid reactions (including shock); *cauda equina syndrome*; *motor and sensory block* (following subarachnoid administration of local anesthetics, or following inadvertent subarachnoid administration during intended performance of a peridural block); circulatory depression.

DIAGNOSTIC TESTS: anemia; methemoglobinemia.

Anesthetics (Topical)

Commercial name(s): *After Burn Double Strength Gel*; *After Burn Double Strength Spray*; *After Burn Gel*; *After Burn Spray*; *Almay Anti-itch Lotion*; *Alphacaine*; *Americaine Topical Anesthetic First Aid Ointment*; *Americaine Topical Anesthetic Spray*; *Butesin Picrate*; *DermaFlex*; *Dermoplast*; *Endocaine*; *Lagol*; *Norwood Sunburn Spray*; *Nupercainal Cream*; *Nupercainal Ointment*; *Pontocaine Cream*; *Pontocaine Ointment*; *Pramegel*; *Prax*; *Shield Burnasept Spray*; *Tronothane*; *Xylocaine*.

Category: Anesthetic, local.

Conventional indications: Skin disorders, minor (treatment).

Primary Actions or Pathogenetic Symptoms

CHEST: cardiovascular system depression (low blood pressure; slow or irregular heartbeat; unusual paleness; increased sweating) - may lead to cardiac arrest.

SKIN: anesthesia; dermatitis, contact (skin rash, redness, itching, or hives; burning, stinging, swelling, or tenderness not present before therapy).

GENERALITIES: anesthesia; angioedema (large, hive-like swellings on skin, mouth, or throat); idiosyncrasy (due to excessive dosage or rapid absorption); cardiovascular system depression (low blood pressure; slow or irregular heartbeat; unusual paleness; increased

sweating)—may lead to cardiac arrest; methemoglobinemia (difficulty in breathing on exertion; dizziness; headache; unusual tiredness or weakness).

DIAGNOSTIC TESTS: methemoglobinemia.

Anesthetics, Barbiturate (Systemic)

Commercial name(s): *Brevital; Brietal; Pentothal.*

Category: Anesthetic (general).

Conventional indications: Anesthesia, general or Anesthesia, general, adjunct or Anesthesia, local, adjunct [Methohexital and Thiopental]; Convulsions (treatment) [Thiopental for injection]; Hypertension, cerebral (treatment) [Thiopental for injection]; Narcoanalysis [Thiopental for injection]; Hypoxia, cerebral (treatment) or Ischemia, cerebral (treatment) [Thiopental for injection].

Primary Actions or Pathogenetic Symptoms

MIND: *anesthesia* (unconsciousness); *anxiety or restlessness; emergence delirium* (anxiety; confusion; excitement; hallucinations; nervousness; restlessness).

HEAD: *headache.*

EYE: *swelling of eyelids.*

FACE: *swelling of face or lips.*

STOMACH: *nausea; vomiting; hiccups* (more frequently with methohexital than with thiopental).

ABDOMEN: *pain, abdominal.*

RECTUM: With rectal administration: *burning; cramping; diarrhea; irritation.*

KIDNEYS: *immune hemolytic anemia with renal failure* (back, leg, or stomach pain; nausea, vomiting, or loss of appetite; unusual tiredness or weakness; fever; pale skin).

LARYNX AND TRACHEA: *laryngospasm.*

RESPIRATION: *apnea; respiratory depression; bronchospasm; wheezing; laryngospasm;* arrest, cardiorespiratory.

COUGH: *coughing* (more frequently with Methohexital than with Thiopental).

CHEST: *bronchospasm; cardiac arrhythmias; tachycardia; pulmonary edema and/or cardiorespiratory arrest.*

EXTREMITIES: *muscle twitching or jerking* (more frequently with Methohexital than with Thiopental); *radial nerve palsy* (weakness of wrist and fingers).

SLEEP: *drowsiness, prolonged.*

CHILL: **increased sensitivity to cold, during recovery** (shivering or trembling).

SKIN: *skin rash, hives, itching, or redness.*

GENERALITIES: *anesthesia; increased sensitivity to cold, during recovery* (shivering or trembling); *anaphylaxis; blood pressure, severe drop in* (due to too rapid injection) (possibly to shock levels, especially in patients who are hypovolemic); *cardiac arrhythmias; circulatory depression; hypotension; immune hemolytic anemia with renal failure* (back, leg, or stomach pain; nausea, vomiting, or loss of appetite; unusual tiredness or weakness; fever; pale skin); *radial nerve palsy* (weakness of wrist and fingers); *seizures;*

tachycardia; thrombophlebitis; CNS depression, severe; hypotension, severe; loss of peripheral vascular resistance.

DIAGNOSTIC TESTS: *immune hemolytic anemia.*

Anesthetics, Inhalation (Systemic)

Commercial name(s): *Ethrane; Fluothane; Forane; Penthrane.*

Category: Anesthetic (general).

Conventional indications: Anesthesia, general.

Primary Actions or Pathogenetic Symptoms

MIND: *anesthesia* (unconsciousness); *emergence delirium, postanesthesia* [more frequent with Halothane].

HEAD: *headache, mild* [less frequent with Isoflurane].

STOMACH: *nausea or vomiting, mild* [more frequent with Nitrous oxide].

ABDOMEN: *hepatotoxicity* (black or bloody vomit, severe or continuing headache, loss of appetite, severe or continuing nausea, pain in abdomen, yellow eyes or skin) [Enflurane; Halothane; Isoflurane; Methoxyflurane].

KIDNEYS: *nephrotoxicity* (increased urination and rapid weight loss or decreased urination and rapid weight gain) (less frequent with Methoxyflurane).

RESPIRATION: *bronchospasm* [Enflurane, Isoflurane, Methoxyflurane, Nitrous Oxide]; *hypoxia; respiratory depression.*

CHEST: *arrhythmias, supraventricular; arrhythmias, ventricular* [more likely to occur with halothane]; *atrioventricular dissociation* [Halothane]; *bradycardia; bronchospasm* [Enflurane; Isoflurane; Methoxyflurane; Nitrous Oxide]; *nodal rhythm* [Halothane].

SLEEP: *drowsiness, prolonged.*

CHILL: *shivering or trembling* [less frequent with Methoxyflurane and Nitrous oxide].

FEVER: *hyperthermic crisis, malignant.*

GENERALITIES: *anesthesia; arrhythmias, supraventricular; arrhythmias, ventricular* [more likely to occur with Halothane]; *atrioventricular dissociation* [Halothane]; *bradycardia; circulatory depression; CNS excitation* (may lead to convulsions) [Enflurane]; *convulsions; hyperthermic crisis, malignant; hypoxia; leukopenia* (with prolonged use) [Nitrous Oxide]; *neurologic injury* (with prolonged or repeated exposure) [Nitrous oxide]; *nodal rhythm* [Halothane]; *hypotension, severe.*

DIAGNOSTIC TESTS: *hypoxia; leukopenia* [Nitrous Oxide].

Angiotensin-converting Enzyme (ACE) Inhibitors (Systemic)

Commercial name(s): *Accupril; Aceon; Altace; Capoten; Coversyl; Inhibace; Lotensin; Mavik; Monopril; Prinivil; Univasc; Vasotec; Zestril.*

Category: Antihypertensive [Benazepril; Captopril; Cilazapril; Enalapril; Enalaprilat; Fosinopril; Lisinopril; Moexipril; Perindopril; Quinapril; Ramipril; Trandolapril]; Vasodilator, congestive heart failure [Benazepril; Captopril; Cilazapril; Enalapril; Fosinopril; Lisinopril; Quinapril; Ramipril; Trandolapril].

Conventional indications: Hypertension (treatment); Congestive heart failure (treatment) [Benazepril, Captopril, Cilazapril, Enalapril, Fosinopril, Lisinopril, Quinapril, Ramipril]; Congestive heart failure, post-myocardial infarction (treatment) [Ramipril, Trandolapril]; Left ventricular dysfunction, asymptomatic (treatment) [Enalapril]; Left ventricular dysfunction, post-myocardial infarction (treatment) [Captopril, Trandolapril]; Myocardial infarction, acute [Lisinopril]; Diabetic nephropathy (treatment) [Captopril]; Risk reduction for myocardial infarction, stroke and death from cardiovascular causes [Ramipril]; Scleroderma, hypertension in (treatment); Scleroderma, renal crisis in (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

FACE: *angioedema of the face and/or lips* (swelling of face).

MOUTH: *dysgeusia* (loss of taste); *angioedema of the tongue*.

STOMACH: *nausea*; *angioedema, intestinal* (stomach pain).

ABDOMEN: **cholestasis**; *angioedema, intestinal* (stomach pain); *fulminant hepatic syndrome*; *hepatotoxicity* [Captopril; Enalapril; Lisinopril]; *injury, hepatocellular*; *necrosis, hepatic*; *pancreatitis* (abdominal pain; nausea; vomiting; abdominal distention; fever); *tenderness, abdominal*.

RECTUM: *diarrhea*.

KIDNEYS: *glomerulopathy, membranous* [Captopril]; *renal failure, reversible*.

URINE: *proteinuria* [Captopril].

LARYNX AND TRACHEA: *angioedema of the glottis, and/or larynx* (sudden trouble in swallowing or breathing); *obstruction, airway*.

RESPIRATION: *obstruction, airway*.

COUGH: cough, dry, persistent.

CHEST: *obstruction, airway*; *pain, chest* (usually associated with severe hypotension).

EXTREMITIES: *pain, joint*; *angioedema of the extremities* (swelling hands or feet).

FEVER: *fever*.

SKIN: **pruritus**; *skin rash, with or without itching, maculopapular or urticarial*; *reaction, lichenoid or pemphigoid, persistent* [Captopril]; psoriasis, psoriasiform eruption [1].

GENERALITIES: **hypotension** (dizziness, light-headedness, or fainting); **jaundice**; *fatigue* (unusual tiredness); *pain, joint*; *agranulocytosis* (fever and chills); *anaphylactoid reactions, severe, life-threatening*; *angioedema of the extremities, face, lips, mucous membranes, tongue, glottis, and/or larynx* (sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet; hoarseness); *death* (due to airway obstruction, or from pancytopenia and sepsis); *eosinophilia*; *fulminant hepatic syndrome*; *neutropenia*; *pancreatitis* (abdominal pain; nausea; vomiting; abdominal distention; fever).

DIAGNOSTIC TESTS: *agranulocytosis*; *eosinophilia*; *neutropenia*; *positive antinuclear antibody (ANA) titers*; *proteinuria* [Captopril].

Complementary Bibliography: [1] Kim GK, Del Rosso JQ. Drug-provoked psoriasis: is it drug induced or drug aggravated? Understanding pathophysiology and clinical relevance. *J Clin Aesthet Dermatol* 2010; 3(1): 32-38.

Angiotensin-converting Enzyme (ACE) Inhibitors and Hydrochlorothiazide (Systemic)

Commercial name(s): *Accuretic; Capozide; Lotensin HCT; Prinzide; Uniretic; Vaseretic; Zestoretic.*

Category: Antihypertensive; Vasodilator, congestive heart failure.

Conventional indications: Hypertension (treatment) [combination of Benazepril, Captopril, Enalapril, Lisinopril, Moexipril, or Quinapril and Hydrochlorothiazide]; Congestive heart failure (treatment) [Captopril, Enalapril, or Lisinopril plus a diuretic, such as Hydrochlorothiazide, and a digitalis glycoside].

Primary Actions or Pathogenetic Symptoms

MIND: *mood or mental changes* (symptom of electrolyte imbalance).

HEAD: *headache.*

FACE: *angioedema of the face and/or lips* (swelling of face); *numbness or tingling in lips* (symptom of electrolyte imbalance).

MOUTH: *loss of taste; angioedema of the tongue; dryness* (symptom of electrolyte imbalance).

STOMACH: *anorexia* (loss of appetite); *upset, stomach; angioedema, intestinal* (stomach pain); *thirst, increased* (symptom of electrolyte imbalance).

ABDOMEN: *angioedema, intestinal* (stomach pain); *cholecystitis or pancreatitis* (severe stomach pain with nausea and vomiting); *hepatic function impairment* (yellow eyes or skin).

RECTUM: *diarrhea.*

KIDNEYS: *glomerulopathy, membranous* [Captopril]; *renal failure, reversible.*

URINE: *proteinuria* [Captopril].

LARYNX AND TRACHEA: *angioedema of the glottis and/or larynx* (sudden trouble in swallowing or breathing); *obstruction, airway.*

RESPIRATION: *obstruction, airway.*

COUGH: *cough, dry, persistent.*

CHEST: *heartbeat, irregular* (symptom of electrolyte imbalance); *obstruction, airway; pain, chest; pulse, weak* (symptom of electrolyte imbalance).

EXTREMITIES: *edema, peripheral* (swelling of ankles, feet, hands, or legs); *pain, joint; angioedema of the extremities; cramps or pain, muscle* (symptom of electrolyte imbalance); *gout* (joint pain; lower back or side pain); *numbness or tingling in hands and/or feet* (symptom of electrolyte imbalance); *weakness or heaviness of legs* (symptom of electrolyte imbalance).

FEVER: *fever.*

SKIN: *photosensitivity* (increased sensitivity of skin to sunlight); *skin rash, with or without itching, maculopapular or urticarial; reaction, lichenoid or pemphigoid, persistent* [Captopril].

GENERALITIES: *hypotension* (dizziness, lightheadedness, or fainting); *tiredness, unusual; agranulocytosis* (fever and chills); *anaphylactoid reactions* (abnormal, high-pitched, breathing sounds; anxiety; blueness of the skin, including the lips or nail beds; confusion; generalized itching; heartbeat sensations; hives; wheezing or difficulty

breathing); *angioedema of the extremities, face, lips, mucous membranes, tongue, glottis, and/or larynx* (sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet; hoarseness); *death* (due to airway obstruction); *eosinophilia*; *gout* (joint pain; lower back or side pain); *heartbeat, irregular* (symptom of electrolyte imbalance); *hyperuricemia*; *neutropenia*; *pancreatitis* (severe stomach pain with nausea and vomiting); *pulse, weak* (symptom of electrolyte imbalance); *thrombocytopenia* (unusual bleeding or bruising).

DIAGNOSTIC TESTS: *agranulocytosis*; *eosinophilia*; *hyperuricemia*; *neutropenia*; *positive antinuclear antibody (ANA) titers*; *proteinuria* [Captopril]; *thrombocytopenia*.

Anidulafungin (Systemic)

Commercial name(s): *Eraxis*.

Category: Antifungal, systemic.

Conventional indications: Candidemia (treatment); Candidiasis, esophageal (treatment); Candidiasis, intra-abdominal abscesses (treatment); Candidiasis, peritonitis (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *pain*.

VISION: *blurred vision*; *disturbance, visual* (blurred or loss of vision; disturbed color perception; night blindness; double vision; tunnel vision; halos around lights; overbright appearance of lights).

MOUTH: *candidiasis, oral* (sore mouth or tongue; white patches in mouth and/or on tongue).

THROAT: *candidiasis* (white patches in the throat).

STOMACH: *nausea*; *dyspepsia aggravated* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); *pain, abdominal, upper* (stomach pain); *vomiting*.

ABDOMEN: *cholestasis* (abdominal or stomach pain; chills; clay-colored stools; dark urine; diarrhea; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *hepatic necrosis* (abdominal or stomach pain; black, tarry stools; chills; light-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *pain, abdominal, upper* (stomach pain).

RECTUM: *diarrhea*; *constipation* (difficulty having a bowel movement [stool]); *fecal incontinence* (loss of bowel control); *infection, clostridial* (diarrhea, nausea and vomiting, abdominal pain, bloody stools).

COUGH: *cough*.

CHEST: *arrhythmia, sinus* (fainting, dizziness, chest pain, shortness of breath); *atrial fibrillation* (fast or irregular heartbeat; dizziness; fainting); *bundle branch block (right)*

(shortness of breath, palpitations, fatigue, irregular fast heartbeat); *extrasystoles, ventricular* (extra heartbeats).

BACK: *pain.*

EXTREMITIES: *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); *phlebitis* (bluish color; changes in skin color; pain, tenderness, and swelling of foot or leg); *thrombophlebitis, superficial* (changes in skin color; pain, tenderness, and swelling of foot or leg); *thrombosis, deep vein* (pain, redness, or swelling in arm or leg).

CHILL: *rigors* (feeling unusually cold; shivering).

FEVER: *pyrexia* (fever).

PERSPIRATION: *sweating increased.*

SKIN: *candidiasis* (white patches with diaper rash); *erythema* (flushing, redness of skin; unusually warm skin); *flushing* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest); *pruritus* (itching skin); *rash*; *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: : *hypercalcemia* (abdominal pain; confusion; constipation; depression; dry mouth; headache; incoherent speech; increased urination; loss of appetite; metallic taste; muscle weakness; nausea; thirst; unusual tiredness; vomiting; weight loss); *hypophosphatemia*; *hypokalemia* (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); *neutropenia* (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *arrhythmia, sinus* (fainting, dizziness, chest pain, shortness of breath); *bundle branch block (right)* (shortness of breath, palpitations, fatigue, irregular fast heartbeat); *cholestasis* (abdominal or stomach pain; chills; clay-colored stools; dark urine; diarrhea; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *coagulopathy* (unusual bleeding or bruising); *convulsions* (seizures); *edema, angioneurotic* (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); *electrocardiogram (ECG) changes*; *extrasystoles, ventricular* (extra heartbeats); *flushing* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest); *fungemia* (infection of blood); *hot flushes*; *hyperglycemia* (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); *hypernatremia* (dizziness; fast heartbeat; high blood pressure; irritability; muscle twitching; restlessness; seizures; swelling of feet or lower legs; weakness); *hypertension* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); *hypomagnesia* (drowsiness; loss of appetite; mood or mental changes; muscle spasms [tetany] or twitching; seizures; nausea or vomiting; trembling; unusual tiredness or weakness); *hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or

weakness); *infusion related reaction* (back pain; chest tightness; chills; fever; flushing; headache; nausea and vomiting; weakness; trouble breathing); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness

or weakness); *phlebitis* (bluish color; changes in skin color; pain, tenderness, and swelling of foot or leg); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *thrombosis, deep vein* (pain, redness, or swelling in arm or leg).

DIAGNOSTIC TESTS: *hypercalcemia; hypophosphatemia; hypokalemia; neutropenia; electrocardiogram (ECG) changes; hyperglycemia; hyponatremia; hypomagnesia; leukopenia; thrombocytopenia.*

Antacids (Oral-Local)

Other commonly used names: Alumina, Calcium Carbonate, and Sodium Bicarbonate; Alumina and Magnesia; Alumina, Magnesia, Calcium Carbonate, and Simethicone; Alumina, Magnesia, and Magnesium Carbonate; Alumina, Magnesia, Magnesium Carbonate, and Simethicone; Alumina, Magnesia, and Simethicone; Alumina, Magnesium Alginate, and Magnesium Carbonate; Alumina and Magnesium Carbonate; Alumina, Magnesium Carbonate, and Simethicone; Alumina, Magnesium Carbonate, and Sodium Bicarbonate; Alumina and Magnesium Trisilicate; Alumina, Magnesium Trisilicate, and Sodium Bicarbonate; Alumina and Simethicone; Alumina and Sodium Bicarbonate; Aluminum Carbonate, Basic; Aluminum Carbonate, Basic, and Simethicone; Aluminum Hydroxide; Calcium Carbonate; Calcium Carbonate and Magnesia; Calcium Carbonate, Magnesia, and Simethicone; Calcium Carbonate and Simethicone; Calcium and Magnesium Carbonates; Magaldrate; Magaldrate and Simethicone; Magnesium Carbonate and Sodium Bicarbonate; Magnesium Hydroxide; Magnesium Oxide

Category: Antacid; Antiurolithic (phosphate calculi) [Aluminum Carbonate; Aluminum Hydroxide]; Laxative, hyperosmotic, saline [Magnesium Hydroxide; Magnesium Oxide]; Antihyperphosphatemic [Aluminum Carbonate; Aluminum Hydroxide; Calcium Carbonate]; Antihypocalcemic [Calcium Carbonate]; Antiurolithic (calcium calculi) [Magnesium Hydroxide].

Conventional indications: Hyperacidity (treatment); Ulcer, duodenal (treatment); Ulcer, gastric (treatment); Hypersecretory conditions, gastric (treatment adjunct); Zollinger-Ellison syndrome (treatment adjunct); Mastocytosis, systemic (treatment adjunct); Adenoma, multiple endocrine (treatment adjunct); Reflux, gastroesophageal (treatment); Stress-related mucosal damage (prophylaxis and treatment); Hyperphosphatemia (treatment) [Aluminum carbonate; Aluminum hydroxide].

Primary Actions or Pathogenetic Symptoms

MIND: *neurotoxicity* (mood or mental changes) (with long-term use in chronic renal failure in dialysis patients) [Aluminum-containing; Magaldrate].

MOUTH: *chalky taste.*

STOMACH: *reduction of gastric acid* (hypochloremic alkalosis); **cramps, stomach** (less frequent with Magnesium-containing and Sodium Bicarbonate-containing); *nausea*; *thirst, increased*; *vomiting*.

RECTUM: **constipation, mild** (less frequent with Calcium-containing); *fecal impaction* (continuing severe constipation) (with large doses) [Aluminum-containing; Calcium-containing]; diarrhea or laxative effect.

STOOL: *discoloration of stools, speckling or whitish* (concentrations of fatty acid–salts of aluminum).

KIDNEYS: calculi, renal (difficult or painful urination) (with overuse or prolonged use) [Calcium-containing].

EXTREMITIES: *osteomalacia and osteoporosis due to phosphate depletion* (bone pain; swelling of wrists or ankles) (with long-term or prolonged use) [Aluminum-containing]; *swelling of feet or lower legs* (with large doses) [Sodium Bicarbonate-containing].

GENERALITIES: *hypercalcemia associated with milk-alkali syndrome* (frequent urge to urinate; continuing headache; continuing loss of appetite; nausea or vomiting; unusual tiredness or weakness) (with long-term or prolonged use) [Sodium Bicarbonate-containing]; *hypermagnesemia or other electrolyte imbalance* (dizziness or lightheadedness; irregular heartbeat; mood or mental changes; unusual tiredness or weakness) (with prolonged use or large doses and/or in renal disease) [Magaldrate; Magnesium-containing]; *metabolic alkalosis* (mood or mental changes; muscle pain or twitching; nervousness or restlessness; slow breathing; unpleasant taste; unusual tiredness or weakness) (with large doses or in renal insufficiency) [Calcium-containing; Sodium Bicarbonate-containing]; *neurotoxicity* (mood or mental changes) (with long-term use in chronic renal failure in dialysis patients) [Aluminum-containing; Magaldrate]; *osteomalacia and osteoporosis due to phosphate depletion* (bone pain; swelling of wrists or ankles) (with long-term or prolonged use) [Aluminum-containing]; *phosphorus depletion syndrome* (continuing feeling of discomfort; continuing loss of appetite; muscle weakness; unusual weight loss) (with prolonged use or large doses) [Aluminum-containing; Magaldrate].

DIAGNOSTIC TESTS: *hypercalcemia associated with milk-alkali syndrome; hypermagnesemia or other electrolyte imbalance; metabolic alkalosis* [Calcium-containing; Sodium Bicarbonate-containing]; calculi, renal [Calcium-containing].

Secondary Actions or Rebound Effects: *increased gastrin levels and increased gastric secretion* (acid rebound).

Anthralin (Topical)

Commercial name(s): *Anthraforte 1; Anthraforte 2; Anthranol 0.1; Anthranol 0.2; Anthranol 0.4; Anthrascalp; Dritho-Scalp; Drithocreame; Drithocreame HP; Micanol.*

Category: Antipsoriatic (topical); Hair growth stimulant, alopecia areata (topical).

Conventional indications: Psoriasis (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *hair growth stimulant* (hirsutism).

EYE: *conjunctivitis, severe* (if this medication comes into contact with the eye).

SKIN: *hair growth stimulant* (hirsutism); **redness or other skin irritation not present before therapy** (including treated and uninvolved skin); *allergic reaction* (skin rash).

GENERALITIES: *hair growth stimulant* (hirsutism).

Anti-inflammatory Drugs, Nonsteroidal (Ophthalmic)

Commercial name(s): *Indocid; Ocufen; Profenal; Voltaren Ophtha; Voltaren Ophthalmic.*

Category: Prostaglandin synthesis inhibitor, ophthalmic [Diclofenac; Flurbiprofen; Indomethacin; Suprofen]; Anti-inflammatory, nonsteroidal, ophthalmic [Diclofenac; Flurbiprofen; Indomethacin]; Miosis inhibitor, in ophthalmic surgery [Diclofenac; Flurbiprofen; Indomethacin; Suprofen].

Conventional indications: Inflammation, ocular (treatment) [Diclofenac; Flurbiprofen; Indomethacin]; Miosis, during ophthalmic surgery (prophylaxis) [Diclofenac; Flurbiprofen; Indomethacin; Suprofen]; Edema, cystoid macular, following cataract surgery (prophylaxis and treatment) [Diclofenac; Indomethacin]; Photophobia, following incisional refractive surgery (treatment) [Diclofenac].

Primary Actions or Pathogenetic Symptoms

HEAD: *headache.*

EYE: *mydriasis* (bigger pupils [black part of eye]); **dry eye; irritation, ocular** (burning; stinging; itching; mild discomfort); *abrasion, corneal* [Indomethacin]; *bleeding* [Flurbiprofen]; *discharge, ocular* (sticky or matted eyelashes); *epithelial defects, corneal* [Indomethacin]; *epithelial staining, punctate* [Suprofen]; *iritis* (throbbing pain; tearing; sensitivity to light) [Diclofenac; Suprofen]; *keratitis, punctate* [Indomethacin]; *keratopathy, striate* [Indomethacin]; *miosis* (smaller pupils [black part of eye]); *opacity, corneal* (blurred vision or other change in vision) [Diclofenac]; *photophobia* [Suprofen]; *redness* (not resulting from surgery and not present before use) [Flurbiprofen; Indomethacin].

VISION: *opacity, corneal* (blurred vision or other change in vision) [Diclofenac].

NOSE: *rhinitis* (runny or stuffy nose).

FACE: *edema* (swelling of face) [Diclofenac].

STOMACH: *nausea* [Diclofenac]; *vomiting* [Diclofenac].

RESPIRATION: *bronchospastic allergic reaction* (shortness of breath; troubled breathing; tightness in chest; wheezing) (reported in an asthmatic patient) [Indomethacin].

CHEST: *bronchospastic allergic reaction* (shortness of breath; troubled breathing; tightness in chest; wheezing) (reported in an asthmatic patient) [Indomethacin].

SLEEP: *insomnia.*

CHILL: *chills* [Diclofenac].

FEVER: *fever* [Diclofenac].

SKIN: *allergic reaction* (itching; tearing) [Diclofenac].

GENERALITIES: *asthenia* (unusual weakness); *fibrosis* [Flurbiprofen]; *pain* [Diclofenac; Suprofen].

Anti-inflammatory Drugs, Nonsteroidal (Systemic)

Commercial name(s): Actiprofen Caplets; Actron; Advil; Advil Caplets; Advil, Children's; Albert Tiafen; Aleve; Alka Butazolidin; Anaprox; Anaprox DS; Ansaid; Apo-Diclo; Apo-Diflunisal; Apo-Flurbiprofen; Apo-Ibuprofen; Apo-Indomethacin; Apo-Keto; Apo-Keto-E; Apo-Napro-Na; Apo-Napro-Na DS; Apo-Naproxen; Apo-Phenylbutazone; Apo-Piroxicam; Apo-Sulin; Apo-Tenoxicam; Bayer Select Ibuprofen Pain Relief Formula Caplets; Butazolidin; Cataflam; Clinoril; Cotylbutazone; Cramp End; Daypro; Dolgesic; Dolobid; EC-Naprosyn; Excedrin IB; Excedrin IB Caplets; Feldene; Froben; Froben SR; Genpril; Genpril Caplets; Haltran; Ibifon 600 Caplets; Ibren; Ibu; Ibu-200; Ibu-4; Ibu-6; Ibu-8; Ibu-Tab; Ibuprin; Ibuprohm; Ibuprohm Caplets; Idarac; Indocid; Indocid SR; Indocin; Indocin SR; Lodine; Lodine XL; Meclomen; Medipren; Medipren Caplets; Midol IB; Mobic; Motrin; Motrin Chewables; Motrin, Children's; Motrin, Children's Oral Drops; Motrin, Junior Strength Caplets; Motrin-IB; Motrin-IB Caplets; Nalfon; Nalfon 200; Naprelan; Naprosyn; Naprosyn-E; Naprosyn-SR; Naxen; Novo-Difenac; Novo-Difenac SR; Novo-Diflunisal; Novo-Flurprofen; Novo-Keto-EC; Novo-Methacin; Novo-Naprox; Novo-Naprox Sodium; Novo-Naprox Sodium DS; Novo-Pirocam; Novo-Profen; Novo-Sundac; Novo-Tenoxicam; Novo-Tolmetin; Nu-Diclo; Nu-Flurbiprofen; Nu-Ibuprofen; Nu-Indo; Nu-Naprox; Nu-Pirox; Nuprin; Nuprin Caplets; Orudis; Orudis KT; Orudis-E; Orudis-SR; Oruvail; PMS-Piroxicam; Pamprin-IB; Ponstan; Ponstel; Q-Profen; Relafen; Rhodis; Rhodis-EC; Rufen; Surgam; Surgam SR; Synflex; Synflex DS; Tolectin 200; Tolectin 400; Tolectin 600; Tolectin DS; Trendar; Voltaren; Voltaren Rapide; Voltaren SR.

Category: Antirheumatic (nonsteroidal anti-inflammatory) [Diclofenac; Diflunisal; Etodolac; Fenoprofen; Flurbiprofen; Ibuprofen; Indomethacin; Ketoprofen; Meclofenamate; Meloxicam; Nabumetone; Naproxen; Oxaprozin; Phenylbutazone; Piroxicam; Sulindac; Tenoxicam; Tiaprofenic Acid; Tolmetin]; Analgesic [Diclofenac; Diflunisal; Etodolac; Fenoprofen; Floctafenine; Ibuprofen; Ketoprofen; Meclofenamate; Mefenamic Acid; Naproxen]; Antigout agent [Diclofenac; Diflunisal; Etodolac; Fenoprofen; Floctafenine; Ibuprofen; Indomethacin; Ketoprofen; Naproxen; Phenylbutazone; Piroxicam; Sulindac]; Anti-inflammatory (nonsteroidal) [Flurbiprofen; Indomethacin; Naproxen; Sulindac; Tenoxicam]; Antipyretic [Ibuprofen; Indomethacin; Naproxen]; Antidysmenorrheal [Diclofenac; Flurbiprofen; Ibuprofen; Indomethacin; Ketoprofen; Meclofenamate; Mefenamic Acid; Naproxen; Piroxicam]; Vascular headache prophylactic [Fenoprofen; Ibuprofen; Indomethacin; Mefenamic Acid; Naproxen]; Vascular headache suppressant [Diclofenac; Diflunisal; Etodolac; Fenoprofen; Floctafenine; Ibuprofen; Indomethacin; Ketoprofen; Meclofenamate; Mefenamic Acid; Naproxen]; Prostaglandin synthesis inhibitor, renal (Bartter's syndrome) [Indomethacin].

Conventional indications: *Rheumatic disease (treatment)* (Arthritis, rheumatoid; Osteoarthritis; Ankylosing spondylitis; Arthritis, juvenile; Arthritis, psoriatic; Reiter's disease; Rheumatic complications associated with Paget's disease of bone); Pain (treatment); Gouty arthritis, acute (treatment); Calcium pyrophosphate deposition disease, acute (treatment); Inflammation, nonrheumatic (treatment); Fever (treatment); Fever, due to malignancy (treatment); Dysmenorrhea (treatment); Hypermenorrhea (treatment); Headache, vascular (prophylaxis); Bartter's syndrome (treatment); Pericarditis.

Primary Actions or Pathogenetic Symptoms

MIND: irritability; nervousness; confusion; depression, mental; anxiety (less frequent with Flurbiprofen); depersonalization, feeling of; disorientation; dysarthria (trouble in speaking); dysfunction, cognitive [Naproxen]; forgetfulness; hallucinations; muzziness; psychotic reaction; coma; lethargy; mood or mental changes [Phenylbutazone].

VERTIGO: dizziness; lightheadedness/vertigo; syncope (fainting).

HEAD: headache, mild to moderate; headache, severe, especially in the morning [more frequent with Indomethacin]; meningitis, aseptic (severe headache, drowsiness, confusion, stiff neck and/or back, general feeling of illness, nausea); migraine (headache, severe and throbbing, sometimes with nausea or vomiting).

EYE: dry eyes; angioedema (large, hive-like swellings on eyelids); conjunctivitis (eye pain, redness, irritation, and/or swelling); deposits, corneal; edema, palpebral (swollen eyelids); hemorrhage, retinal (red eyes); irritated eyes; opacity, corneal; pain; photophobia (increased sensitivity of eyes to light); swollen eyes; edema, periorbital (swelling around the eyes) [Phenylbutazone].

VISION: blurred or double vision or any change in vision; amblyopia, toxic; disturbances, retinal or macular (blurred vision or other vision change); scotomata (change in vision).

HEARING: ringing or buzzing in ears; decreased hearing or any change in hearing.

NOSE: nosebleeds, unexplained; rhinitis, allergic (unexplained runny nose or sneezing) (less frequent with Flurbiprofen); rhinosinusitis.

FACE: angioedema (large, hive-like swellings on face and/or lips); bluish color of lips [Phenylbutazone].

MOUTH: dryness, irritation, or soreness of mouth; stomatitis, aphthous or ulcerative (sores, ulcers, or white spots on lips or in mouth); angioedema (large, hive-like swellings on mouth and/or tongue); dysarthria (trouble in speaking); glossitis (irritated tongue); ulceration, gingival; taste, bitter or other taste change (less frequent with Floctafenine).

THROAT: ulcerations, esophageal (more frequent with Floctafenine); dysphagia (difficulty in swallowing); esophagitis (burning feeling in throat or chest, difficulty in swallowing).

STOMACH: heartburn; indigestion; nausea; pain or discomfort, epigastric (stomach pain or discomfort, mild to moderate); appetite, decreased or loss of; gastritis (burning feeling in chest or stomach, indigestion, tenderness in stomach area); ulcerations, gastric, multiple gastrointestinal and/or peptic or nonpeptic (more frequent with Floctafenine); thirst, continuing; vomiting (more frequent for Tiaprofenic Acid and Tolmetin); bleeding or hemorrhage, gastrointestinal (more frequent with Floctafenine; less frequent with Etodolac and Flurbiprofen); gastroenteritis (severe abdominal pain, diarrhea, loss of appetite, nausea, weakness); hematemesis (vomiting blood or material that looks like coffee grounds) (more frequent with Floctafenine; less frequent with Etodolac and Flurbiprofen); perforation, gastrointestinal; weight loss, unexplained (more frequent with Tolmetin).

ABDOMEN: cramps, pain, or discomfort, abdominal, mild to moderate; feeling bloated; gas; indigestion; abdominal distention (swelling of abdomen); perforation of pre-existing sigmoid lesions, e.g., diverticula, carcinoma (severe pain, cramping, or burning; bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe and continuing nausea, heartburn, and/or indigestion) (more frequent with

Floctafenine); ulcerations, multiple gastrointestinal and/or peptic or nonpeptic (more frequent with Floctafenine); colitis or exacerbation of; enteritis, regional or exacerbation of (abdominal pain, cramping, or discomfort; bloody stools; diarrhea); enterocolitis; gastroenteritis (severe abdominal pain, diarrhea, loss of appetite, nausea, weakness); ileus, paralytic [Meclofenamate]; liver function tests, abnormal [Naproxen]; obstruction, biliary (“sludge” of crystals in biliary duct) [Sulindac]; pancreatitis (abdominal pain, fever with or without chills, swelling and/or tenderness in upper abdominal or stomach area); perforation, gastrointestinal; ulceration, intestinal; hemorrhage, gastrointestinal; hepatomegaly [Phenylbutazone].

RECTUM: constipation; diarrhea; irritation rectal (with rectal dosage forms) [Ketoprofen] (rare for Indomethacin); bleeding (with rectal dosage forms) [Indomethacin; Naproxen] (more frequent with Ketoprofen; less frequent with Piroxicam); melen (bloody stools) (more frequent with Floctafenine; less frequent with Etodolac and Flurbiprofen); obstruction; stenosis.

STOOL: melena (bloody stools) (more frequent with Floctafenine; less frequent with Etodolac and Flurbiprofen).

BLADDER: urge to urinate, frequent; urinary tract infection (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate) (more frequent with Flurbiprofen) [Tolmetin]; anuria (cessation of urination); cystitis; dysuria (burning, painful, or difficult urination) (more frequent with Floctafenine; less frequent with Etodolac and Fenoprofen); incontinence (loss of bladder control); oliguria; pain; polyuria (sudden, large increase in frequency and quantity of urine).

KIDNEYS: fluid retention/ edema (increased blood pressure; decrease in amount of urine; swelling of face, fingers, feet, and/or lower legs; rapid weight gain); urinary tract infection (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate) (more frequent with Flurbiprofen) [Tolmetin]; calculi, renal (blood in urine; difficult, burning, or painful urination; severe pain in lower back, side, or abdomen); glomerulitis or glomerulonephritis; impairment or failure, renal (increased blood pressure; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sudden decrease in amount of urine; swelling of face, fingers, feet, and/or lower legs; continuing thirst; unusual tiredness or weakness; weight gain); necrosis, tubular; nephritis, interstitial (bloody or cloudy urine; increased blood pressure; sudden decrease in amount of urine; swelling of face, fingers, feet, and/or lower legs; rapid weight gain) (may be hypersensitivity-mediated); nephrosis (sudden decrease in amount of urine; swelling of face, fingers, feet, and/or lower legs; rapid weight gain); nephrotic syndrome (cloudy urine, swelling of face); papillary, renal.

URETHRA: urethritis [Floctafenine]; ureteral obstruction (blood in urine; difficult, burning, or painful urination; severe pain in lower back, side, or abdomen).

URINE: strong-smelling urine [Floctafenine]; blood in urine (more frequent with Floctafenine); crystalluria; proteinuria (cloudy urine).

GENITALIA FEMALE: bleeding from vagina, unexplained, unexpected, and/or unusually heavy menstrual; menstrual disorders [Naproxen].

LARYNX AND TRACHEA: edema, laryngeal (shortness of breath or troubled breathing).

RESPIRATION: *asthma; bronchospastic allergic reactions* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing); *shortness of breath or troubled breathing* (more frequent with Fenoprofen and Naproxen).

COUGH: *hemoptysis* (spitting blood).

CHEST: *arrhythmias, cardiac; heartbeat, fast; pain, chest; asthma; bronchospastic allergic reactions* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing); *congestive heart failure or exacerbation of* (chest pain; shortness of breath; troubled breathing, tightness in chest, and/or wheezing; decrease in amount of urine; swelling of face, fingers, feet, or lower legs; unusual tiredness; weight gain); *edema, pulmonary* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing); *heartbeat, pounding* (more frequent with Fenoprofen; less frequent with Naproxen); *hemoptysis* (spitting blood); *pericarditis* (chest pain; fever with or without chills; shortness of breath, troubled breathing, and/or tightness in chest); *pneumonitis, eosinophilic* [Naproxen]; *tuberculosis, latent, pulmonary, reactivation of* [Indomethacin]; abnormalities, electrocardiographic [Phenylbutazone].

EXTREMITIES: *cramps or pain, muscle* (not present before treatment and not related to condition being treated) (more frequent with Fenoprofen and Tolmetin); *myalgia* [Naproxen]; *neuropathy, peripheral* (numbness, tingling, pain, or weakness in hands or feet); *weakness, muscle* (less frequent for Tolmetin); swelling of hands, feet, or lower legs [Phenylbutazone].

NAILS: *loosening or splitting of fingernails or other nail disorder*; bluish color of fingernails [Phenylbutazone].

SLEEP: *drowsiness; trouble in sleeping* (more frequent in Floctafenine); *insomnia* [Naproxen].

DREAMS: *dream abnormalities* [Naproxen].

CHILL: *fever with chills* (less frequent with Etodolac).

FEVER: *hypothermia; fever with or without chills* (less frequent with Etodolac).

PERSPIRATION: *sweating, increased.*

SKIN: *skin rash; flushing or hot flashes; itching* (more frequent with Fenoprofen, Nabumetone and Tiaprofenic Acid); *dermatitis, exfoliative* (fever with or without chills; red, thickened, or scaly skin; swollen and/or painful glands; unusual bruising); *desquamation* (peeling of skin); *discoloration, skin; eczema; eruption/blisters, bullous; erythema* (reddening of skin); *hives* (more frequent with Naproxen; less frequent with Meclofenamate); *erythema multiforme* (fever with or without chills; muscle cramps or pain; skin rash; sores, ulcers, or white spots on lips or in mouth); *erythema nodosum* (fever with or without chills; skin rash); *petechia* (pinpoint red spots on skin); *photosensitivity reactions resembling porphyria cutanea tarda and epidermyolysis bullosa* (blistering, scarring, darkening or lightening of skin color); *photosensitive or photoallergic dermatologic reaction* (severe sunburn; skin rash, redness, itching, and/or discoloration after exposure to sunlight); *purpura* (bruises and/or red spots on skin); *toxic epidermal necrolysis* (redness, tenderness, itching, burning, or peeling of skin; sore throat; fever with or without chills); *urticaria* [Naproxen]; bluish color of skin [Phenylbutazone]; psoriasis, psoriasiform eruption [1].

GENERALITIES: *Bartter's syndrome; hypothermia; pain absence; fluid retention/edema* (increased blood pressure; decrease in amount of urine; swelling of face, fingers,

feet, and/or lower legs; rapid weight gain); **unusual weakness with no other signs or symptoms**; *anemia* (unusual tiredness or weakness) (may be associated with gastrointestinal bleeding or microbleeding or with hemodilution caused by fluid retention); *arrhythmias, cardiac*; *flushing or hot flashes*; *general feeling of discomfort or illness*; *heartbeat, fast*; *trembling or twitching*; *acidosis, metabolic* [Phenylbutazone]; *agranulocytosis* (granulocytopenia) (fever with or without chills; sores, ulcers, or white spots on lips or in mouth; sore throat) (more likely to occur in geriatric patients); *alkalosis, respiratory* [Phenylbutazone]; *anaphylaxis or anaphylactoid reactions* (changes in facial skin color; skin rash, hives, and/or itching; fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing) (may include anaphylactic shock with sudden, severe decrease in blood pressure and collapse); *anemia, aplastic [pancytopenia]* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sores, ulcers, or white spots on lips or in mouth; sore throat) (more likely to occur in geriatric patients); *anemia, hemolytic* (troubled breathing, exertional; unusual tiredness or weakness); *angiitis [vasculitis]* (muscle pain, cramps, and/or weakness; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; skin rash; spitting blood; unusual tiredness or weakness); *blood pressure, increased or decreased* (may reach hypertensive levels) (more frequent with Tolmetin); *bone marrow depression*; *congestive heart failure or exacerbation of* (chest pain; shortness of breath; troubled breathing, tightness in chest, and/or wheezing; decrease in amount of urine; swelling of face, fingers, feet, or lower legs; unusual tiredness; weight gain); *convulsions*; *eosinophilia* (less frequent with Piroxicam); *ecchymosis/bruising* (less frequent with Naproxen); *erythema multiforme* (fever with or without chills; muscle cramps or pain; skin rash; sores, ulcers, or white spots on lips or in mouth); *heartbeat, pounding* (more frequent with Fenoprofen; less frequent with Naproxen); *hepatitis or jaundice, toxic* (loss of appetite, nausea, vomiting, yellow eyes or skin, swelling in upper abdominal area); *hepatitis, cholestatic or jaundice* (dark urine; fever; itching; light-colored stools; pain, tenderness, and/or swelling in upper abdominal area; skin rash; swollen glands); *hyperglycemia* [Naproxen]; *hypoglycemia* [Naproxen]; *hypersensitivity syndrome, multisystemic, diflunisal-induced*; *hypocoagulability* (bleeding from cuts or scratches that lasts longer than usual); *leukopenia [neutropenia]* (usually asymptomatic; rarely, fever or chills, cough or hoarseness, lower back or side pain, painful or difficult urination) (less frequent with Piroxicam); *Loeffler's syndrome [eosinophilic pneumonitis]* (chest pain; fever with or without chills; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; unusual weakness); *lymphadenopathy* (swollen and/or painful glands); *malaise* [Naproxen]; *myalgia*; *nephrotic syndrome* (cloudy urine, swelling of face); *pancreatitis* (abdominal pain, fever with or without chills, swelling and/or tenderness in upper abdominal or stomach area); *Reye's syndrome* (in children, teenagers, or young adults with acute febrile illnesses, especially influenza or varicella) [Diflunisal]; *serum sickness-like reaction* (fever with or without chills; muscle cramps, pain, and/or weakness; skin rash, hives, and/or itching; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; swollen and/or painful glands); *Stevens-Johnson syndrome* (bleeding or crusting sores on lips; chest pain; fever with or without chills; muscle cramps or pain; skin rash; sores, ulcers, or white spots in mouth; sore throat); *systemic lupus erythematosus [SLE]-like syndrome* (bloody or cloudy urine; chest pain; fever with or without chills;

shortness of breath, troubled breathing, tightness in chest, and/or wheezing; skin rash, hives, and/or itching; sudden decrease in amount of urine; swelling of face, fingers, feet, and/or lower legs; swollen and/or painful glands; unusual weakness; rapid weight gain); *thrombocytopenia with or without purpura* (usually asymptomatic; rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *toxic epidermal necrolysis* (redness, tenderness, itching, burning, or peeling of skin; sore throat; fever with or without chills); *toxic reactions, increased risk of severe, possibly fatal* (in patients 60 years of age and older) [Phenylbutazone]; coma; convulsions, especially in children [Phenylbutazone]; death [Phenylbutazone]; dyscrasias, blood [Phenylbutazone]; jaundice [Phenylbutazone]

DIAGNOSTIC TESTS: *anemia*; *agranulocytosis* (granulocytopenia); *anemia, aplastic* [*pancytopenia*]; *anemia, hemolytic*; *blood in urine* (more frequent with Floctafenine); *bone marrow depression*; *calculi, renal*; *crystalluria*; *eosinophilia* (less frequent with Piroxicam); *hyperglycemia* [Naproxen]; *hypoglycemia* [Naproxen]; *hyperkalemia* (less frequent with Tiaprofenic acid); *leukopenia* [*neutropenia*] (less frequent with Piroxicam); *proteinuria* (cloudy urine); abnormalities, electrocardiographic [Phenylbutazone]; hypoprothrombinemia.

Complementary Bibliography: [1] Kim GK, Del Rosso JQ. Drug-provoked psoriasis: is it drug induced or drug aggravated? Understanding pathophysiology and clinical relevance. *J Clin Aesthet Dermatol* 2010; **3**(1): 32-38.

Secondary Actions or Rebound Effects: *angina pectoris or exacerbation of* (chest pain); *coagulation, intravascular, disseminated* [Indomethacin].

Anti-inhibitor Coagulant Complex (Systemic)

Commercial name(s): *Autoplex T*; *FEIBA VH*.

Category: Antihemorrhagic.

Conventional indications: Hemorrhagic complications in hemophilic patients with factor VIII or factor IX inhibitors (prophylaxis and treatment); Hemorrhagic complications in non-hemophilic patients with acquired inhibitors (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

CHEST: myocardial infarction (anxiety; cold sweating; dizziness, lightheadedness, or fainting; increased heart rate; nausea or vomiting; severe pain or pressure in the chest and/or the jaw, neck, back, or arms; shortness of breath).

GENERALITIES: *disseminated intravascular coagulation (DIC)* (cyanosis [bluish coloring], especially of the hands and feet; ecchymoses at injection sites [large, nonelevated blue or purplish patches in the skin]; persistent bleeding or oozing from puncture sites or mucous membranes [bowel, mouth, nose, or urinary bladder]); **myocardial infarction** (anxiety; cold sweating; dizziness, lightheadedness, or fainting; increased heart rate; nausea or vomiting; severe pain or pressure in the chest and/or the jaw, neck, back, or arms; shortness of breath); **thrombosis or thromboembolism** (pain in chest, groin, or legs [especially calves]; rapid breathing; severe, sudden headache; sudden and unexplained

shortness of breath, slurred speech, vision changes, and/or weakness or numbness in arm or legs; sudden loss of coordination); allergic reaction (changes in facial skin color; chills; fast or irregular breathing; fever; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; skin rash, hives, and/or itching) (may include anaphylactic shock with sudden, severe decrease in blood pressure and collapse); hypotension (feeling faint; lightheadedness) (occurs with too rapid an injection rate; also, with *Autoplex T*, may occur if the infusion is done later than 1 hour following reconstitution); injection reaction (changes in blood pressure or pulse rate; flushing [redness of face]; headache) (occurs with too rapid an injection rate); *anaphylactic shock*; *anamnestic responses with a rise in factor VIII inhibitor titers* (more likely to occur in patients who have a low inhibitor titer and have a marked increase in inhibitor level following factor VIII exposure, and in those patients treated with AICC over several days); *blood pressure, decrease in, severe; collapse*.

DIAGNOSTIC TESTS: *anamnestic responses with a rise in factor VIII inhibitor titers*.

Anti-thymocyte Globulin (Rabbit) (Systemic)

Commercial name(s): *Thymoglobulin*.

Category: Immunosuppressant.

Conventional indications: Transplant rejection, kidney (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

MOUTH: moniliasis, oral (white patches on mouth, tongue, or throat).

THROAT: moniliasis, oral (white patches on throat, mouth or tongue).

STOMACH: **nausea**; gastritis (stomach cramps or pain; nausea; vomiting; bloated feeling or gas; heartburn; indigestion).

ABDOMEN: **pain, abdominal**.

RECTUM: **diarrhea**.

BLADDER: **urinary tract infection** (difficult, burning, or painful urination; frequent urge to urinate; bladder pain; lower back or side pain; cloudy or bloody urine).

KIDNEYS: **urinary tract infection** (difficult, burning, or painful urination; frequent urge to urinate; bladder pain; lower back or side pain; cloudy or bloody urine).

RESPIRATION: **dyspnea** (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: **tachycardia** (fast or irregular heart beat).

EXTREMITIES: **edema, peripheral** (swelling of ankles, feet, fingers).

CHILL: **chills**.

FEVER: **fever**.

GENERALITIES: **immunosuppression**; **asthenia** (loss of strength or energy; muscle pain or weakness; unusual weak feeling); **cytomegalovirus infection** (chills; cough or hoarseness; fever; cold; flu-like symptoms); **hyperkalemia** (confusion; irregular or slow heartbeat; numbness or tingling around lips hands, or feet; shortness of breath or troubled

breathing; tiredness or weakness; unexplained anxiety; weakness or heaviness of legs); **hypertension** (high blood pressure); **leukopenia** (may be related to overdosage); **malaise** (general feeling of discomfort or illness; unusual tiredness or weakness); **pain**; **sepsis** (chills; fever fast heartbeat); **tachycardia** (fast or irregular heart beat); **thrombocytopenia** (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness) (may be related to overdosage); herpes simplex infection (burning or stinging of skin; painful cold sores or blisters on lips, nose, eyes, or genitals); infection, severe; lymphoma or post-transplant lymphoproliferative disease (PTLD), increase in the incidence of; over-immunosuppression.

DIAGNOSTIC TESTS: hyperkalemia; leukopenia; thrombocytopenia.

Antandrogens, Nonsteroidal (Systemic)

Commercial name(s): Anandron; Casodex; Euflex; Eulexin; Nilandron.

Category: Antineoplastic.

Conventional indications: Carcinoma, prostatic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: confusion; depression, mental; nervousness, hypoactivity (acute overdosage in animal studies) [Flutamide]; tranquilization (acute overdosage in animal studies) [Flutamide].

VERTIGO: dizziness (more frequent with Nilutamide; rare with Flutamide).

HEAD: headache (more frequent with Nilutamide; rare with Flutamide).

EYE: sensitivity to light, increased; lacrimation (acute overdosage in animal studies).

VISION: **adaptation of eyes to dark, impaired** (delay in seeing clearly when going from light to dark areas) (effect may last from seconds to minutes); chromatopsia (change in color vision).

FACE: edema (swelling of face) (more frequent with Nilutamide).

MOUTH: dryness.

STOMACH: **nausea**; appetite, decrease in or loss of (more frequent with Nilutamide); bleeding, gastrointestinal (bloody or black, tarry stools); vomiting; anorexia (acute overdosage in animal studies) [Flutamide].

ABDOMEN: bleeding, gastrointestinal (bloody or black, tarry stools); feeling bloated; gas; indigestion; hepatocellular swelling and vacuolization (chronic toxicity studies in beagle dogs) [Nilutamide].

RECTUM: **constipation**; **diarrhea** (less frequent with Nilutamide); bleeding, gastrointestinal (bloody or black, tarry stools); bleeding, rectal (bloody or black, tarry stools).

URINE: urine discoloration (amber or yellow-green urine coloration).

GENITALIA MALE: **impotence or decrease in sexual desire** (less frequent with Bicalutamide).

GENITALIA FEMALE: **decrease in sexual desire** (less frequent with Bicalutamide).

RESPIRATION: **upper respiratory tract infection** (cough or hoarseness; fever; runny nose; shortness of breath, troubled breathing, tightness in chest, or wheezing; sneezing; sore throat); *dyspnea* (shortness of breath or difficult breathing); slow respiration (acute overdosage in animal studies) [Flutamide].

CHEST: **pulmonary or upper respiratory tract infection** (cough or hoarseness; fever; runny nose; shortness of breath, troubled breathing, tightness in chest, or wheezing; sneezing; sore throat); *gynecomastia* (pain or tenderness in breasts; swelling of breasts) (more frequent with Nilutamide); *pulmonary disorder* (chest pain; cough; shortness of breath or troubled breathing); degeneration, myocardial, acidophilic (chronic toxicity studies in beagle dogs) [Flutamide]; degeneration, myxomatous, chronic (chronic toxicity studies in beagle dogs) [Flutamide]; fibrosis, intra-atrial (chronic toxicity studies in beagle dogs) [Flutamide]; lung pathology (granulomatous inflammation and chronic alveolitis) (chronic toxicity studies in rats) [Nilutamide].

EXTREMITIES: *edema* (swelling of fingers, feet, or lower legs) (more frequent with Nilutamide); *neuropathy* (numbness, tingling, pain, or muscle weakness in hands, arms, feet, or legs); ataxia (acute overdosage in animal studies) [Flutamide].

SLEEP: *trouble in sleeping* (more frequent with Nilutamide; rare with Flutamide); *drowsiness* (less frequent with Bicalutamide).

CHILL: *chills*.

FEVER: *fever*.

SKIN: **hot flashes** (feeling of warmth; flushing; sudden sweating); *itching*; *skin rash*, piloerection (acute overdosage in animal studies) [Flutamide].

GENERALITIES: **hot flashes** (feeling of warmth; flushing; sudden sweating); **weakness** (rare with Flutamide); *alcohol intolerance* (dizziness or lightheadedness; feeling faint; flushing of face; general feeling of illness); *anemia* (unusual tiredness or weakness); *flu-like syndrome* (fever; headache; muscle or joint pain; tiredness); *hypertension*; *leukopenia* (cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination); *neuropathy* (numbness, tingling, pain, or muscle weakness in hands, arms, feet, or legs); *thrombocytopenia* (black, tarry stools; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *hepatitis or jaundice, including cholestatic jaundice* (dark urine; “flu-like” symptoms; gastrointestinal upset; loss of appetite; nausea or vomiting; pain or tenderness in upper right area of abdomen; unusual tiredness; yellow eyes or skin); *methemoglobinemia* (bluish-colored lips, fingernails, or palms of hands; dizziness, severe, or fainting; feeling of severe pressure in head; shortness of breath; weak and fast heartbeat); ataxia (acute overdosage in animal studies) [Flutamide]; death (chronic toxicity studies in beagle dogs) [Nilutamide]; hypoactivity (acute overdosage in animal studies) [Flutamide]; piloerection (acute overdosage in animal studies) [Flutamide]; tranquilization (acute overdosage in animal studies) [Flutamide]; vasculitis (chronic toxicity studies in beagle dogs) [Flutamide].

DIAGNOSTIC TESTS: *anemia*; *leukopenia*; *thrombocytopenia*; *methemoglobinemia*; *urine discoloration* (amber or yellow-green urine coloration).

Anticholinergics/ Antispasmodics (Systemic)

Commercial name(s): *A-Spas S/L; Anaspaz; Banthine; Bently; Bentlyl; Buscopan; Cantil; Cystospaz; Cystospaz-M; Donnamar; ED-SPAZ; Formulex; Gastrosed; Gastrozepin; Homapin; Levbid; Levsin; Levsin/SL; Levsinex Timecaps; Pro-Banthine; Propanthel; Quarzan; Robinul; Robinul Forte; Spasmoban; Symax SL; Symax SR; Transderm-Scop; Transderm-V.*

Category: Anticholinergic [Anisotropine; Atropine; Belladonna; Clidinium; Dicyclomine; Glycopyrrolate; Homatropine; Hyoscyamine; Mepenzolate; Methantheline; Methscopolamine; Pirenzepine; Propantheline; Scopolamine]; Antispasmodic, gastrointestinal [Dicyclomine; Scopolamine Butylbromide]; Antidysmenorrheal [Belladonna; Scopolamine Butylbromide]; Antiarrhythmic [Atropine (parenteral only); Glycopyrrolate (parenteral only); Hyoscyamine (parenteral only); Scopolamine (parenteral only)]; Antidote (to cholinesterase inhibitors) [Atropine; Hyoscyamine (parenteral only)]; Antidote (to muscarine) [Atropine; Hyoscyamine (parenteral only)]; Antidote (to organophosphate pesticides) [Atropine]; Antispasmodic, urinary [Atropine; Scopolamine]; Cholinergic adjunct (curariform block) [Atropine (parenteral only); Glycopyrrolate (parenteral only); Hyoscyamine (parenteral only)]; Anesthesia adjunct [Scopolamine (parenteral only)]; Antiemetic [Scopolamine]; Antivertigo agent [Belladonna; Scopolamine]; Antidiarrheal [Glycopyrrolate].

Conventional indications: Ulcer, peptic (treatment adjunct); Bowel syndrome, irritable (treatment) [Atropine, belladonna, clidinium, dicyclomine, glycopyrrolate, hyoscyamine, propantheline; scopolamine]; Urologic disorders, symptoms of (treatment) [Oral hyoscyamine]; Urinary incontinence (treatment) [Propantheline]; Hypersecretory conditions, gastric, in anesthesia (prophylaxis) [Parenteral glycopyrrolate]; Salivation and respiratory tract secretions, excessive, in anesthesia (prophylaxis) [Oral and parenteral atropine and the parenteral forms of glycopyrrolate and scopolamine]; Arrhythmias, succinylcholine-induced (prophylaxis) [Parenteral atropine]; Arrhythmias, surgical procedure-induced (prophylaxis) [Parenteral atropine]; Arrhythmias, cardiac (treatment) [Parenteral atropine]; Bradycardia, sinus (treatment) [Parenteral atropine]; Arrhythmias, in anesthesia (treatment) [Parenteral atropine]; Arrhythmias, in surgery (treatment) [Parenteral atropine]; Toxicity, cholinesterase inhibitor (prophylaxis) [Parenteral forms of atropine and glycopyrrolate]; Toxicity, cholinesterase inhibitor (treatment) [Oral and parenteral atropine]; Toxicity, muscarine (treatment) [Oral and parenteral atropine]; Toxicity, organophosphate pesticide (treatment) [Oral and parenteral atropine]; Anesthesia, general, adjunct [Parenteral scopolamine]; Motion sickness (prophylaxis and treatment) [Transdermal scopolamine]; Nausea and vomiting, post operative (prophylaxis) [Transdermal scopolamine]; Pneumonitis, aspiration (prophylaxis) [Parenteral glycopyrrolate]; Asthma (treatment adjunct) [Inhaled atropine]; Salivation, excessive, postsurgical (prophylaxis) [Transdermal scopolamine]; Salivation, excessive, medical condition-related (prophylaxis) [Transdermal scopolamine]; Salivation, excessive, in dental procedures (prophylaxis) [Oral forms of atropine, glycopyrrolate, methantheline, and propantheline]; Biliary tract disorders (treatment adjunct) [Atropine, hyoscyamine, and scopolamine butylbromide]; Radiography, gastrointestinal, adjunct [Parenteral atropine and parenteral hyoscyamine]; Dysmenorrhea (treatment) [Belladonna and scopolamine butylbromide]; Enuresis, nocturnal (treatment) [Belladonna and scopolamine butylbromide]; Rhinitis, allergic, severe (treatment) [Oral hyoscyamine]; Diarrhea

(treatment) [Glycopyrrolate]; Parkinsonism (treatment) [Oral atropine, belladonna, parenteral hyoscyamine, oral hyoscyamine and scopolamine combination, and oral scopolamine].

Primary Actions or Pathogenetic Symptoms

MIND: *anesthesia* (unconsciousness) [Scopolamine (parenteral only)]; *anxiety*; *confusion*; *irritability*; *memory, loss of* (more frequent with Scopolamine); *nervousness* [Glycopyrrolate]; *clumsiness*; *excitement, unusual*; *hallucinations*; *nervousness, unusual*; *restlessness, unusual*; *speech, slurred*.

VERTIGO: *dizziness* [Glycopyrrolate]; *hypotension, orthostatic* (dizziness, feeling faint, or continuing lightheadedness); *lightheadedness, temporary* (with parenteral administration); *dizziness*.

HEAD: *headache*.

EYE: *mydriatic effect* (increased sensitivity of eyes to light); *pressure, intraocular, increased* (eye pain).

VISION: *accommodation of the eye, difficulty in* (blurred vision); *mydriatic effect* (increased sensitivity of eyes to light); *blurred vision, continuing*; *near vision, changes in*.

NOSE: *dryness*.

MOUTH: *dryness*; *salivary secretion, decreased* (difficulty in swallowing); *taste, loss of* [Glycopyrrolate]; *speech, slurred*.

THROAT: *dryness*.

STOMACH: *nausea*; *vomiting*.

ABDOMEN: *bloated feeling*.

RECTUM: *constipation* [Glycopyrrolate].

BLADDER: *urination, difficult*.

GENITALIA MALE: *impotence* [Glycopyrrolate].

GENITALIA FEMALE: *breast milk, decreased flow of*.

RESPIRATION: *difficulty in breathing* (may lead to respiratory paralysis with quaternary ammonium compounds because of curare-like effects); *paralysis, respiratory*.

CHEST: *palpitation* [Glycopyrrolate]; *tachycardia* [Glycopyrrolate]; *heartbeat, fast*

EXTREMITIES: *clumsiness*; *muscle weakness, severe* (may lead to respiratory paralysis with quaternary ammonium compounds because of curare-like effects); *unsteadiness*.

SLEEP: *drowsiness* [more frequent with Scopolamine]; *trouble in sleeping* (rebound effect?).

DREAMS: *nightmares*.

FEVER: *fever*.

PERSPIRATION: *sweating, decreased*.

SKIN: *dryness*; *allergic reaction* (skin rash or hives); *pruritus* [Glycopyrrolate]; *urticaria* [Glycopyrrolate]; *flushing of skin, unusual*; *warmth, unusual*.

GENERALITIES: *anesthesia* (unconsciousness) [Scopolamine (parenteral only)]; *irritation at injection site*; *anaphylactic/anaphylactoid reactions* [Glycopyrrolate]; *hypersensitivity* [Glycopyrrolate]; *hypotension, orthostatic* (dizziness, feeling faint, or continuing lightheadedness); *palpitation* [Glycopyrrolate]; *sense of well-being, false*; *tachycardia* [Glycopyrrolate]; *tiredness or weakness, unusual* (rebound effect?); *flushing of skin, unusual*; *heartbeat, fast*; *seizures*.

Secondary Actions or Rebound Effects: *reaction, paradoxical (trouble in sleeping).*

Anticoagulants (Systemic)

Commercial name(s): *Coumadin; Miradon; Sintrom; Warfilone.*

Category: Anticoagulant.

Conventional indications: Thrombosis (prophylaxis and/or treatment); Thromboembolism (prophylaxis and/or treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *apprehension.*

HEAD: **hemorrhage, intracranial;** *alopecia of scalp* (loss of hair on scalp) (with long-term use); *headache; ischemia, cerebral.*

EYE: **hemorrhage, ophthalmic** (bleeding in eye; blurred vision).

VISION: accommodation paralysis (blurred vision or other problems) [Phenindione].

NOSE: **epistaxis** (nosebleeds); hypoplasia of the nasal bridge (studies in animals, during periods of rapid bone growth, mainly in children).

FACE: *edema* (swelling of face) (symptom of renal damage).

MOUTH: **bleeding, gingival** (bleeding from gums when brushing teeth); *sores, ulcers, or white spots in mouth.*

THROAT: *sores, ulcers, or white spots in throat.*

STOMACH: **bleeding, gastrointestinal** (black, tarry stools; blood in stools; bloody vomit or vomit that looks like coffee grounds; constipation); *appetite, loss of; bloated stomach or gas; cramps; nausea* (more frequent with Dicumarol); *pain; vomiting* (more frequent with Dicumarol).

ABDOMEN: **bleeding, gastrointestinal** (black, tarry stools; blood in stools; bloody vomit or vomit that looks like coffee grounds; constipation); **bleeding, retroperitoneal** (abdominal pain or swelling; back pain or backaches); **hemorrhage, adrenal** (abdominal or stomach pain; diarrhea; dizziness or fainting; headache; loss of appetite; nausea with or without vomiting; nervousness; weakness); **hemorrhage, hepatic** (asymptomatic); *gas; hepatotoxicity* (usually asymptomatic and seen on laboratory tests; dark urine; yellow eyes or skin); *ileus, paralytic, hemorrhage-induced; pancreatitis; pain, abdominal.*

RECTUM: **bleeding, gastrointestinal** (black, tarry stools; blood in stools; bloody vomit or vomit that looks like coffee grounds; constipation); *diarrhea* (more frequent with Dicumarol).

KIDNEYS: *damage, renal, with resultant edema and proteinuria* (bloody or cloudy urine; difficult or painful urination; sudden increase or decrease in amount of urine; swelling of face, feet, and/or lower legs); *insufficiency, renal.*

URINE: **blood in urine (hematuria); color, orange-red, in alkaline urine** [Anisindione]; *proteinuria* (bloody or cloudy urine) (symptom of renal damage).

GENITALIA MALE: *gangrene, penile.*

GENITALIA FEMALE: bleeding, uterine, excessive (unusually heavy or unexpected menstrual bleeding); **hemorrhage, ovarian, at time of ovulation** (abdominal or stomach pain).

CHEST: pulmonary bleeding (coughing up blood; shortness of breath); **hemorrhage, pericardial** (chest pain); *calcification, tracheal or tracheobronchial* (trouble in breathing) (with long-term Warfarin).

BACK: hemorrhage, spinal (confusion; dizziness; headache, continuing or severe; nausea and vomiting; paralysis; paresthesias; weakness); *infarction, spinal cord; pain, flank or back*; calcifications, irregular, excessive, in vertebrae (studies in animals, during periods of rapid bone growth, mainly in children).

EXTREMITIES: bleeding into joints (joint pain, stiffness, or swelling); *edema* (swelling of feet, and/or lower legs) (symptom of renal damage); *myalgia; pain, abrupt and intense, in the leg, foot, or toes; purple toes syndrome* (blue or purple toes; pain in toes); *ulcers, foot*; calcifications, irregular, excessive, in epiphyses and vertebrae (studies in animals, during periods of rapid bone growth, mainly in children).

FEVER: fever.

SKIN: oozing from cuts or wounds, unusual; petechiae (pinpoint red spots on skin); *dermatitis, allergic* (skin rash, hives, and/or itching) (rare with Dicumarol and Warfarin); *livedo reticularis; necrosis and/or gangrene, hemorrhagic, of skin* (sores on skin, especially on thighs, breasts, penis, or buttocks).

GENERALITIES: bleeding, fatal or nonfatal; bruising, unusual; hemorrhage, adrenal (abdominal or stomach pain; diarrhea; dizziness or fainting; headache; loss of appetite; nausea with or without vomiting; nervousness; weakness); **hemorrhage, spinal** (confusion; dizziness; headache, continuing or severe; nausea and vomiting; paralysis; paresthesias; weakness); **hypotension or shock** (dizziness or fainting); *intolerance, cold; leukopenia* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *agranulocytosis* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination) [Anisindione]; *atheroemboli, systemic; death; emboli, lipid; fainting; hypertension; livedo reticularis; microemboli, cholesterol; myalgia; necrosis and/or gangrene, hemorrhagic, of skin and other tissues* (sores on skin, especially on thighs, breasts, penis, or buttocks); *pancreatitis; polyarteritis, symptoms simulating; thrombosis of the venules and capillaries within the subcutaneous fat* (more frequent in patients with protein C deficiency); *vasculitis* (fever; itching; skin sores or blisters); *weakness*; anemia, aplastic [Phenindione]; aplasia, red cell [Phenindione]; eosinophilia [Phenindione]; leukocytosis [Phenindione]; thrombocytopenia [Phenindione].

DIAGNOSTIC TESTS: hematuria; color, orange-red, in alkaline urine [Anisindione]; *leukopenia; agranulocytosis* [Anisindione]; *proteinuria* (bloody or cloudy urine) (symptom of renal damage); anemia, aplastic [Phenindione]; agglutinins, leukocyte, presence of [Phenindione]; eosinophilia [Phenindione]; leukocytosis [Phenindione]; mononuclear cells, atypical [Phenindione]; thrombocytopenia [Phenindione].

Anticonvulsants, Dione (Systemic)

Other commonly used names: Paramethadione; Trimethadione (TMO, Trimethadionum, Trimethinum, and Troxidone)

Commercial name(s): Paramethadione: *Isoethadione; Paradione; Paradione* (TN). Trimethadione: *Absentol; Absetil; Convenixa; Convexina; Edion; Epidione; Epidone; Epixal; Etydion; Mino-Aleviatin; Minoaleuiatin; Minoaleviatin; Neo-Absentol; Petidion; Petidon; Petilep; Petimalin; Pitmal; Ptimal; Tiozanona; Tredione; Tricione; Tridilona; Tridion; Tridione; Tridone; Trilidona; Trimedal; Trimedone; Trimethin; Trimetin; Trioxanona; Triozanona; Tromedone; Troxidone*

Category: Anticonvulsant.

Conventional indications: Epilepsy, absence seizure pattern (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **irritability;** *behavior or mood changes; confusion;* coma (following massive overdose).

VERTIGO: **dizziness.**

HEAD: **headache;** *hair loss.*

EYE: **photophobia** (increased sensitivity of eyes to light).

VISION: **diplopia** (changes in vision, especially night blindness, glare or snowy image caused by bright light, or double vision); **hemeralopia; scotomata.**

STOMACH: *anorexia* (loss of appetite); *hiccups; pain, stomach; nausea; vomiting.*

ABDOMEN: *pain, abdominal.*

KIDNEYS: *nephrosis* (swelling of face, hands, legs, and feet; cloudy urine) (fatalities have occurred).

EXTREMITIES: *myasthenia gravis-like syndrome* (severe muscle weakness, including drooping eyelids; double vision; difficulty in chewing, swallowing, talking, and breathing; severe tiredness); ataxia (clumsiness or unsteadiness).

SLEEP: **drowsiness;** *insomnia* (trouble in sleeping).

SKIN: *hair loss; allergic reaction* (itching of skin associated with swollen lymph nodes; enlarged liver and spleen); *dermatitis, exfoliative; erythema multiforme; skin rash* (usually acneform or morbilliform).

GENERALITIES: *blood pressure changes; hair loss; paresthesias* (tingling, burning, or prickly sensations); *tiredness or weakness, unusual; weight loss, unusual; agranulocytosis; allergic reaction* (itching of skin associated with swollen lymph nodes; enlarged liver and spleen); *anemia, aplastic or hypoplastic; death; eosinophilia; erythema multiforme; hepatitis* (loss of appetite; unusual tiredness; yellow eyes or skin; weight loss; fever; skin rash or itching; nausea or vomiting; dark urine; pain in abdomen and joints); *jaundice; leukopenia; lupus erythematosus (SLE)-like syndrome, systemic* (chest pain; fever; muscle or joint pain; shortness of breath or troubled breathing; skin rash; swollen lymph nodes); *lymphadenopathies* (swollen lymph nodes); *myasthenia gravis-like syndrome* (severe muscle weakness, including drooping eyelids; double vision; difficulty in chewing, swallowing, talking, and breathing; severe tiredness); *pancytopenia; thrombocytopenia* (sore throat and fever; unusual bleeding, such as recurring nosebleeds, bleeding gums, or vaginal bleeding; red or purple spots on skin; unusual tiredness or weakness) (fatalities have occurred); ataxia (clumsiness or unsteadiness); coma (following massive overdose)

DIAGNOSTIC TESTS: *agranulocytosis; anemia, aplastic or hypoplastic; eosinophilia; leukopenia; pancytopenia; thrombocytopenia.*

Secondary Actions or Rebound Effects: *convulsions, tonic-clonic, precipitation of.*

Anticonvulsants, Hydantoin (Systemic)

Commercial name(s): *Cerebyx; Dilantin; Dilantin Infatabs; Dilantin Kapseals; Dilantin-125; Dilantin-30; Mesantoin; Peganone; Phenytek.*

Category: Anticonvulsant [Ethotoin; Fosphenytoin; Mephenytoin; Phenytoin]; Antiarrhythmic [Phenytoin]; Antineuralgic (trigeminal neuralgia) [Phenytoin]; Skeletal muscle relaxant [Phenytoin].

Conventional indications: Epilepsy, absence seizure pattern (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **confusion; excitement, unusual; irritability; nervousness; speech, slurred; impairment, cognitive** (defects in intelligence, short-term memory, learning ability, and attention); dysarthria (stuttering).

VERTIGO: **dizziness, mild;** staggering walk.

HEAD: *headache.*

EYE: **nystagmus** (uncontrolled back-and-forth and/or rolling eye movements).

VISION: blurred or double vision.

NOSE: *widening of nasal tip.*

FACE: *hypertrichosis* (unusual and excessive hair growth on face) (primarily with phenytoin); *protrusion of jaw; thickening of lips.*

MOUTH: **hyperplasia, gingival** (bleeding, tender, or enlarged gums) (higher incidence in children and young adults; incidence in all age groups rare with Ethotoin); **speech, slurred; stuttering;** dysarthria (stuttering).

STOMACH: **nausea; vomiting.**

ABDOMEN: *necrosis, hepatic.*

RECTUM: **constipation; diarrhea** (Ethotoin).

KIDNEYS: *failure, renal.*

GENITALIA MALE: *peyronie's disease* (pain of penis on erection).

CHEST: *gynecomastia* (swelling of breasts) (in males); *infiltrates or fibrosis, pulmonary* (fever; troubled or quick, shallow breathing; unusual tiredness or weakness; loss of appetite and weight; chest discomfort).

EXTREMITIES: *skeletal muscle relaxant; ataxia* (clumsiness or unsteadiness); **trembling of hands;** *polyarteritis; polymyositis; twitching, muscle; movements, choreoathetoid, transient* (restlessness or agitation; uncontrolled jerking or twisting movements of hands, arms, or legs; uncontrolled movements of lips, tongue, or cheeks); *polyneuropathy, peripheral, predominantly sensory* (numbness, tingling, or pain in hands or feet) [Phenytoin]; *rhabdomyolysis, severe;* hyperreflexia.

SLEEP: **drowsiness, mild; insomnia** (trouble in sleeping).

FEVER: **fever.**

SKIN: **lupus erythematosus; necrolysis, epidermal, toxic** (fever; muscle pain; skin rash; sore throat); **rash, licheniform, or maculopapular, or morbilliform, often pruritic; hypertrichosis** (unusual and excessive hair growth on body and face) (primarily with Phenytoin); *paresthesias and pruritus* (burning; tingling; pain; or itching) (occurring most commonly in groin areas, but also in face, scalp, head, and neck areas, in lower back, buttocks, and abdominal areas) [Fosphenytoin].

GENERALITIES: *skeletal muscle relaxant; ataxia* (clumsiness or unsteadiness); **eosinophilia; hypersensitivity syndrome, phenytoin; lupus erythematosus, systemic; lymphadenopathy; necrolysis, epidermal, toxic** (fever; muscle pain ; skin rash; sore throat); **Stevens-Johnson syndrome; hypertrichosis** (unusual and excessive hair growth on body and face) (primarily with Phenytoin); *lymphoid syndromes* (including lymphoid hyperplasia, pseudolymphomas, and pseudo-pseudolymphomas) [Phenytoin]; *polyarteritis; polymyositis; agranulocytosis* (chills; fever; sore throat; unusual tiredness or weakness); *cardiovascular collapse* (with parenteral use only, when administered rapidly by the intravenous route); *CNS depression* (with parenteral use only, when administered rapidly by the intravenous route); *coagulopathy, intravascular, disseminated; hepatitis* (dark urine; light gray-colored stools; loss of appetite and weight; severe stomach pain; yellow eyes or skin; skin rash or itching; dizziness; nausea or vomiting; joint pain; unusual tiredness or weakness); *hypotension* (with parenteral use only, when administered rapidly by the intravenous route); *imbalance, vitamin D and/or calcium* (frequent bone fractures; bone malformations; slowed growth); *jaundice, cholestatic; leukopenia* (fever; chills; sore throat); *movements, choreoathetoid, transient* (restlessness or agitation; uncontrolled jerking or twisting movements of hands, arms, or legs; uncontrolled movements of lips, tongue, or cheeks); *pain, burning, or irritation at injection site* (rarely with necrosis and sloughing) [Phenytoin]; *pancytopenia* (nosebleeds or other unusual bleeding or bruising); *paresthesias and pruritus* (burning; tingling; pain; or itching) (occurring most commonly in groin areas, but also in face, scalp, head, and neck areas, in lower back, buttocks, and abdominal areas) [Fosphenytoin]; *periarteritis nodosa* (abdominal pain; soreness of muscles; unusual tiredness or weakness; fever with or without chills; headache; loss of appetite and weight); *rhabdomyolysis, severe; serum sickness; thrombocytopenia* (fever; sore throat; unusual bleeding or bruising); death; hyperreflexia; seizures; tiredness or weakness, unusual; tremor.

DIAGNOSTIC TESTS: **eosinophilia; agranulocytosis; imbalance, vitamin D and/or calcium; leukopenia; pancytopenia; thrombocytopenia.**

Anticonvulsants, Succinimide (Systemic)

Commercial name(s): *Celontin; Zarontin.*

Category: Anticonvulsant.

Conventional indications: Epilepsy, absence seizure pattern (treatment); Epilepsy, complex partial seizure pattern (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *aggressiveness; concentrating, difficulty in; depression, mental; irritability; psychosis, paranoid* (mood or mental changes).

VERTIGO: *dizziness.*

HEAD: *headache.*

STOMACH: *anorexia* (loss of appetite); **cramps; hiccups; nausea; vomiting.**

RESPIRATION: *depression, respiratory* (shortness of breath; slow or irregular breathing; troubled breathing).

EXTREMITIES: *ataxia* (clumsiness or unsteadiness).

SLEEP: *drowsiness.*

DREAMS: *nightmares.*

SKIN: *rash, erythematous, pruritic* (skin rash and itching).

GENERALITIES: *ataxia* (clumsiness or unsteadiness); **lupus erythematosus, systemic** (skin rash and itching; swollen glands; sore throat and fever; muscle pain); **Stevens-Johnson syndrome;** *tiredness or weakness, unusual; agranulocytosis* (chills; fever; sore throat; unusual tiredness or weakness); *anemia, aplastic* (shortness of breath, troubled breathing, wheezing, or tightness in chest; sores, ulcers, or white spots on lips or in mouth; swollen or painful glands; unusual bleeding or bruising); *eosinophilia* (fever); *leukopenia* (fever; chills; sore throat); *pancytopenia* (nosebleeds or other unusual bleeding or bruising); *depression, central nervous system (CNS)* (severe drowsiness).

DIAGNOSTIC TESTS: *agranulocytosis; anemia, aplastic* (shortness of breath, troubled breathing, wheezing, or tightness in chest; sores, ulcers, or white spots on lips or in mouth; swollen or painful glands; unusual bleeding or bruising); *eosinophilia; leukopenia; pancytopenia.*

Secondary Actions or Rebound Effects: *convulsions, tonic-clonic, precipitation of.*

Antidepressants, Monoamine Oxidase (MAO) Inhibitor (Systemic)

Commercial name(s): *Marplan; Nardil; Parnate.*

Category: Antidepressant; Antipanic agent; Headache (vascular; tension) prophylactic.

Conventional indications: Depression, major (treatment) [Isocarboxazid; Phenelzine; Tranylcypromine]; Panic disorder (treatment) [Phenelzine and, to a lesser extent, Tranylcypromine]; Headache, vascular (prophylaxis) or Headache, tension (prophylaxis) [Monoamine oxidase inhibitors].

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety, severe; confusion; hallucinations; irritability, unusual.*

VERTIGO: **hypotension, orthostatic, mild to severe** (*dizziness or lightheadedness, tiredness and weakness, especially when getting up from a lying or sitting position*); *dizziness, severe.*

HEAD: **headache, mild, without increase in blood pressure;** *headache, severe; bleeding, intracranial.*

EYE: *pupils, enlarged; sensitivity to light, increased.*

VISION: blurred vision.

MOUTH: *dryness* (more frequent with Isocarboxazid).

STOMACH: appetite, increased and weight gain, related to carbohydrate craving; nausea; *anorexia* (decreased appetite); *vomiting*.

RECTUM: *constipation*; *diarrhea*.

KIDNEYS: syndrome of inappropriate antidiuretic hormone secretion [SIADH] (decreased urine output).

GENITALIA MALE: sexual ability, decreased (anorgasmia; ejaculatory disorders; impotence).

GENITALIA FEMALE: sexual ability, decreased (anorgasmia).

RESPIRATION: depression or failure, respiratory (troubled breathing).

CHEST: *heartbeat, fast or slow*; *pain, chest, severe*.

BACK: *sore or stiff neck*.

EXTREMITIES: *edema, peripheral* (swelling of feet and lower legs); reflexes, hyperactive or slowed; stiffness, muscle.

SLEEP: drowsiness (more likely with Isocarboxazid and Phenelzine); trouble in sleeping, severe.

CHILL: *chills*.

FEVER: *fever*.

PERSPIRATION: sweating, increased.

SKIN: *cold, clammy skin*.

GENERALITIES: anticholinergic effect; hypotension, orthostatic, mild to severe (dizziness or lightheadedness, tiredness and weakness, especially when getting up from a lying or sitting position); shakiness; stimulation, CNS (muscle twitching during sleep; restlessness or agitation; trouble in sleeping) (more likely with Tranylcypromine); syndrome of inappropriate antidiuretic hormone secretion [SIADH] (decreased urine output); trembling; weakness; *stimulation, sympathetic* (fast or pounding heartbeat; unusual excitement or nervousness); *death; heartbeat, fast or slow; hepatitis* (dark urine; skin rash; yellow eyes or skin); *hypertensive crisis; leukopenia* (fever; sore throat); *parkinsonian syndrome* (slurred speech; staggering gait); *serotonin syndrome* (confusion; hypomania; restlessness; myoclonus; hyperreflexia; diaphoresis; shivering; tremor; diarrhea; incoordination; fever) (typically as the result of combining serotonergic agents (such as Amitriptyline, Clomipramine, Doxepin, or Imipramine; Fluoxetine, Paroxetine, or Sertraline; or Trazodone) with MAO inhibitors); blood pressure, high or low; convulsions; reflexes, hyperactive or slowed.

DIAGNOSTIC TESTS: *leukopenia*.

Antidepressants, Tricyclic (Systemic)

Commercial name(s): Anafranil; Apo-Amitriptyline; Apo-Imipramine; Apo-Trimip; Asendin; Aventyl; Elavil; Endep; Impril; Levate; Norfranil; Norpramin; Novo-Doxepin; Novo-Tripamine; Novopramine; Novotriptyn; Pamelor; Pertofrane; Rhotrimine; Sinequan; Surmontil; Tipramine; Tofranil; Tofranil-PM; Triadapin; Triptil; Vivactil.

Category: Antidepressant [Amitriptyline; Amoxapine; Clomipramine; Desipramine; Doxepin; Imipramine; Nortriptyline; Protriptyline; Trimipramine]; Antienuretic [Amitriptyline; Imipramine Hydrochloride]; Antiobsessive-compulsive agent [Clomipramine]; Antipanic agent [Clomipramine; Desipramine; Doxepin; Imipramine; Nortriptyline]; Antineuralgic [Amitriptyline; Clomipramine; Desipramine; Doxepin; Imipramine; Nortriptyline; Trimipramine]; Antiulcer agent [Amitriptyline; Doxepin; Trimipramine]; Antinarcoclepsy adjunct [Imipramine; Protriptyline]; Anticatataplectic [Clomipramine; Desipramine; Imipramine; Protriptyline]; Antibulimic [Amitriptyline; Clomipramine; Desipramine; Imipramine]; Antipruritic [Doxepin].

Conventional indications: Depression, mental (treatment) [Amitriptyline, amoxapine, clomipramine, desipramine, doxepin, imipramine, nortriptyline, protriptyline, and trimipramine]; Enuresis (treatment adjunct) [Imipramine hydrochloride, but not pamoate, and amitriptyline]; Obsessive-compulsive disorder (treatment) [Clomipramine]; Panic disorder (treatment) [Especially clomipramine, desipramine, doxepin, imipramine, and nortriptyline]; Pain, neurogenic (treatment) [Especially amitriptyline, clomipramine, desipramine, doxepin, imipramine, nortriptyline, and trimipramine]; Attention deficit hyperactivity disorder (treatment) [Desipramine, imipramine, and protriptyline]; Headache (prophylaxis); Ulcer, peptic (treatment) [Amitriptyline, doxepin, and trimipramine]; Narcolepsy/cataplexy syndrome (treatment) or Narcolepsy/cataplexy syndrome (treatment adjunct) [Especially clomipramine, desipramine, imipramine, and protriptyline]; Bulimia nervosa (treatment) [Amitriptyline, clomipramine, desipramine, and imipramine]; Cocaine withdrawal (treatment) [Desipramine and imipramine]; Urinary incontinence (treatment) [Imipramine]; Pruritus (treatment) [Doxepin]; Nicotine dependence (treatment adjunct) [Nortriptyline].

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness*; *restlessness*; *anxiety*; agitation; concentration, disturbed; confusion; hallucinations.

VERTIGO: *hypotension*, *orthostatic* (dizziness).

HEAD: *headache*; *tremors*, *fine-muscle, in head* (shakiness); *alopecia* (hair loss).

EYE: pupils, enlarged.

HEARING: *tinnitus* (ringing, buzzing, or other unexplained noises in the ears).

MOUTH: *dryness*; *taste, unpleasant*; *tremors, fine-muscle, in tongue* (shakiness); *trouble with gums* (more common with Clomipramine).

TEETH: *trouble with teeth* (more common with Clomipramine).

STOMACH: *appetite, increased* (may include craving for sweets); *nausea*; *heartburn*; *vomiting*.

ABDOMEN: *jaundice, cholestatic* (yellow eyes or skin).

RECTUM: *diarrhea*.

BLADDER: *retention, urine*.

GENITALIA MALE: *sexual function impairment* (more common with Amoxapine and Clomipramine); *swelling, testicular* (more common with Amoxapine).

GENITALIA FEMALE: *sexual function impairment* (more common with Amoxapine and Clomipramine).

RESPIRATION: shortness of breath; troubled breathing.

CHEST: *heartbeat, fast, slow, or irregular; enlargement, breast, in males and females* (more common with Amoxapine); *galactorrhea, in females* (inappropriate secretion of milk).

EXTREMITIES: *contraction, muscular, tremors, fine-muscle, in arms and hands* (shakiness).

SLEEP: *drowsiness; trouble in sleeping* (more common with Protriptyline, especially when taken late in the day).

FEVER: fever.

PERSPIRATION: *sweating, excessive.*

SKIN: *allergic reaction* (increased sensitivity to sunlight; skin rash and itching; swelling of face and tongue); *alopecia* (hair loss).

GENERALITIES: *contraction, muscular; hypotension, orthostatic* (dizziness); *tiredness or weakness, mild; weight gain; anticholinergic effects* (blurred vision; confusion; delirium or hallucinations; constipation, especially in the elderly, possibly resulting in paralytic ileus; difficult urination; eye pain due to aggravation of glaucoma); *heartbeat, fast, slow, or irregular; hypotension* (fainting); *Parkinsonian syndrome* (difficulty in speaking or swallowing; loss of balance control; mask-like face; shuffling walk; slowed movements; stiffness of arms and legs; trembling and shaking of fingers and hands); *agranulocytosis or other blood dyscrasias* (red or brownish spots on skin; sore throat and fever; unusual bleeding or bruising); *allergic reaction* (increased sensitivity to sunlight; skin rash and itching; swelling of face and tongue); *alopecia* (hair loss); *jaundice, cholestatic* (yellow eyes or skin); *Neuroleptic malignant syndrome (NMS)* (convulsions; difficult or fast breathing; fast heartbeat or irregular pulse; fever; high or low [irregular] blood pressure; increased sweating; loss of bladder control; severe muscle stiffness; unusually pale skin; unusual tiredness or weakness) [Amoxapine]; *syndrome of inappropriate secretion of antidiuretic hormone [SIADH]* (irritability; muscle twitching; weakness); convulsions (more severe and refractory with Amoxapine).

DIAGNOSTIC TESTS: *agranulocytosis or other blood dyscrasias.*

Secondary Actions or Rebound Effects: *tardive dyskinesia* (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of the arms or legs) [Amoxapine]; *seizures* (more common with Clomipramine).

Antidiabetic Agents, Sulfonylurea (Systemic)

Commercial name(s): *Albert Glyburide; Amaryl; Apo-Chlorpropamide; Apo-Glyburide; Apo-Tolbutamide; DiaBeta; Diabinese; Diamicron; Dimelor; Dymelor; Euglucon; Gen-Glybe; Glucotrol; Glucotrol XL; Glynase PresTab; Med Glybe; Micronase; Novo-Butamide; Novo-Glyburide; Novo-Propamide; Nu-Glyburide; Orinase; Tolinase.*

Category: Antidiabetic [Acetohexamide; Chlorpropamide; Gliclazide; Glimepiride; Glipizide; Glyburide; Tolazamide; Tolbutamide]; Antidiuretic [Chlorpropamide].

Conventional indications: Diabetes, type 2 (treatment) [Sulfonylureas]; Diabetes insipidus, central, partial (treatment) [Chlorpropamide].

Primary Actions or Pathogenetic Symptoms

MIND: *coma* (hypoglycemia, severe).

VERTIGO: dizziness.

HEAD: headache.

VISION: *blurred vision and/or changes in accommodation* (difficulty in focusing the eyes) (thought to be caused by changes in blood glucose concentration).

MOUTH: taste, changes in sense of.

STOMACH: disturbances, gastrointestinal (constipation; diarrhea; flatulence; heartburn; loss of or increase in appetite; nausea; stomach pain, fullness, or discomfort; vomiting).

ABDOMEN: disturbances, gastrointestinal (constipation; diarrhea; flatulence; heartburn; loss of or increase in appetite; nausea; stomach pain, fullness, or discomfort; vomiting); *cholestasis; impairment, hepatic function; jaundice, cholestatic; porphyria, hepatic; porphyria cutanea tarda* (dark urine; fluid-filled skin blisters; itching of the skin; light-colored stools; sensitivity to the sun; skin thinness; yellow eyes or skin).

BLADDER: polyuria (increased volume of urine and frequency of urination).

SLEEP: drowsiness.

SKIN: *exfoliative dermatitis* (peeling of skin; skin redness, itching, or rash); *photosensitivity* (increased sensitivity of skin to sunlight).

GENERALITIES: *hypoglycemia, including nocturnal hypoglycemia* (anxiety; behavior change similar to drunkenness; blurred vision; cold sweats; confusion; cool pale skin; difficulty in concentrating; drowsiness; excessive hunger; fast heartbeat; headache; nausea; nervousness; nightmares; restless sleep; shakiness; slurred speech; unusual tiredness or weakness); **weight gain;** *coma* (hypoglycemia, severe); *erythema multiforme; hyponatremia, dilutional* [Chlorpropamide] (rare with Tolbutamide); *hypo-osmolality* [Chlorpropamide] (rare with Tolbutamide); *seizures* (hypoglycemia, severe); *syndrome of inappropriate antidiuretic hormone (SIADH)* (depression; dizziness; headache; lethargy; nausea; swelling or puffiness of face, ankles, or hands with occasional progression to seizures, coma, or stupor) [Chlorpropamide] (rare with Tolbutamide); *agranulocytosis; anemia, aplastic or hemolytic* (continuing and unexplained tiredness or weakness, headache, shortness of breath brought on by exercise); *death; eosinophilia* (blood in sputum; chest pain; chills; general feeling of ill health; increased production of sputum; increased sweating; shortness of breath); *hepatitis; jaundice, cholestatic; leukopenia; pancytopenia* (fever and sore throat; pale skin; unusual bleeding or bruising; unusual tiredness or weakness); *thrombocytopenia* (unusual bleeding or bruising).

DIAGNOSTIC TESTS: *hypoglycemia; hyponatremia, dilutional* [Chlorpropamide] (rare with Tolbutamide); *hypo-osmolality* [Chlorpropamide] (rare with Tolbutamide); *agranulocytosis; anemia, aplastic or hemolytic; eosinophilia; leukopenia; pancytopenia; thrombocytopenia*.

Antidyskinetics (Systemic)

Commercial name(s): *Akineton; Apo-Benztropine; Apo-Trihex; Artane; Artane Sequels; Cogentin; Kemadrin; PMS Benztropine; PMS Procyclidine; PMS Trihexyphenidyl; Parsidol; Parsitan; Procyclid; Trihexane; Trihexy.*

Category: Antidyskinetic.

Conventional indications: Parkinsonism (treatment); Extrapyramidal reactions, drug-induced (treatment); Athetosis, congenital (treatment) or Degeneration, hepatolenticular (treatment) [Ethopropazine].

Primary Actions or Pathogenetic Symptoms

MIND: *excitement, unusual* (more frequent with high doses of Trihexyphenidyl); *memory, loss of* (especially in the elderly); *nervousness; anxiety; confusion* (more frequent in the elderly or with high doses); psychoses, toxic (mood or mental changes) (especially in patients with mental illness being treated with neuroleptic drugs).

VERTIGO: *hypotension, orthostatic* (dizziness or lightheadedness when getting up from a lying or sitting position).

HEAD: *headache.*

EYE: *pressure, intraocular, increased* (eye pain).

VISION: *changes in vision* [Phenothiazine].

MOUTH: *soreness of mouth and tongue.*

STOMACH: *pain; upset, stomach.*

CHEST: *heartbeat, fast.*

EXTREMITIES: *cramps, muscle; numbness or weakness in hands or feet.*

SLEEP: *trouble in sleeping.*

FEVER: *hyperthermia* (especially geriatric, chronically ill, and alcoholic patients, exposed to high environmental temperatures).

PERSPIRATION: *anhidrosis* (especially geriatric, chronically ill, and alcoholic patients, exposed to high environmental temperatures).

SKIN: *allergic reaction* (skin rash).

GENERALITIES: **anticholinergic effects, mild** (blurred vision; constipation; decreased sweating; difficult or painful urination, especially in older men; drowsiness; dryness of mouth, nose, or throat; increased sensitivity of eyes to light; nausea or vomiting); *cramps, muscle; hypotension, orthostatic* (dizziness or lightheadedness when getting up from a lying or sitting position); *sense of well-being, false* (especially in the elderly or with high doses); *electrocardiogram abnormalities (ECG)* [Phenothiazine]; *heartbeat, fast; jaundice* [Phenothiazine]; anticholinergic effects, severe (clumsiness or unsteadiness; severe drowsiness; severe dryness of mouth, nose, or throat; fast heartbeat; shortness of breath or troubled breathing; warmth, dryness, and flushing of skin); CNS depression (severe drowsiness); CNS stimulation (hallucinations, seizures, trouble in sleeping).

DIAGNOSTIC TESTS: *electrocardiogram abnormalities (ECG)* [Phenothiazine].

Secondary Actions or Rebound Effects: *extrapyramidal symptoms, recurrence or worsening of* (difficulty in speaking or swallowing; loss of balance control; mask-like face; muscle spasms, especially of face, neck, and back; restlessness or desire to keep moving; shuffling walk; stiffness of arms or legs; trembling and shaking of hands and fingers;

twisting movements of body) (especially after abrupt withdrawal of antidyskinetic medication; may require reinstatement of the antidyskinetic).

Antifungals, Azole (Systemic)

Commercial name(s): *Diflucan; Diflucan-150; Nizoral; Sporanox.*

Category: Antiadrenal; Antineoplastic (systemic) [Ketoconazole]; Antifungal (systemic) [Fluconazole; Itraconazole; Ketoconazole].

Conventional indications: Aspergillosis (treatment) [Itraconazole]; Blastomycosis (treatment) [Itraconazole]; Candidiasis (prophylaxis) [Fluconazole]; Candidiasis, esophageal (treatment); Candidiasis, oropharyngeal (treatment); Candidiasis, disseminated (treatment) [Fluconazole and ketoconazole]; Candidiasis, mucocutaneous, chronic (treatment); Candidiasis, vulvovaginal (treatment); Chromomycosis (treatment) [Itraconazole and ketoconazole]; Coccidioidomycosis (treatment) [Fluconazole and itraconazole]; Histoplasmosis (treatment) [Itraconazole]; Meningitis, cryptococcal (treatment) or Meningitis, cryptococcal (suppression) [Fluconazole]; Neutropenia, febrile (treatment) [Itraconazole (injection and oral solution)]; Onychomycosis (treatment); Paracoccidioidomycosis (treatment) [Itraconazole and ketoconazole]; Pityriasis versicolor (treatment), Tinea corporis (treatment), Tinea cruris (treatment) or Tinea pedis (treatment) [Ketoconazole]; Carcinoma, prostatic (treatment) [High-dose ketoconazole]; Cryptococcosis (treatment) [Fluconazole and itraconazole]; Cushing's syndrome (treatment) [High-dose ketoconazole]; Hirsutism (treatment) [Ketoconazole]; Histoplasmosis (suppression) [Itraconazole]; Leishmaniasis, cutaneous (treatment) [Itraconazole and ketoconazole]; Neutropenia, febrile (prophylaxis) [Fluconazole and itraconazole]; Neutropenia, febrile (treatment) [Fluconazole]; Paronychia (treatment) [Itraconazole and ketoconazole]; *Penicillium marneffei* infection (treatment) [Itraconazole (in adults) and ketoconazole (in children)]; Pneumonia, fungal (treatment); Septicemia, fungal (treatment); Sporotrichosis, disseminated (treatment) [Itraconazole and ketoconazole]; Tinea barbae (treatment) or Tinea capitis (treatment) [Systemic ketoconazole, in combination with topical imidazoles]; Tinea manuum (treatment) [Fluconazole and itraconazole].

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *alopecia* (hair loss, thinning of hair); *headache.*

EYE: *photophobia* (increased sensitivity of the eyes to light) [Ketoconazole]; *angioedema* (large, hive-like swelling on eyelids).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue); *taste perversion* (change in taste; bad unusual or unpleasant taste in mouth) [Fluconazole].

THROAT: *angioedema* (large, hive-like swelling on throat).

STOMACH: *disturbances, gastrointestinal* (abdominal pain; constipation; loss of appetite; vomiting); *dyspepsia* (acid or sour stomach; belching; heartburn indigestion; stomach discomfort, upset or pain); *nausea; pain, abdominal* (stomach pain); *vomiting.*

ABDOMEN: *disturbances, gastrointestinal* (abdominal pain; constipation; loss of appetite; vomiting); *failure, liver* (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools yellow eyes or skin) [Itraconazole]; *hepatotoxicity* (dark or amber urine; loss of appetite; pale stools; stomach pain; unusual tiredness or weakness; yellow eyes or skin); *pain, abdominal* (stomach pain).

RECTUM: *constipation* (difficulty having a bowel movement [stool]); *diarrhea*.

KIDNEYS: *hypoadrenalism*.

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *menstrual irregularities* [Ketoconazole]; *angioedema* (large, hive-like swelling on sex organs); *menstrual disorders* (absent, missed, or irregular menstrual periods; stopping of menstrual bleeding).

CHEST: *gynecomastia* (enlargement of the breasts in males) [Ketoconazole]; *congestive heart failure* (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing) [Itraconazole]; *edema, pulmonary* (chest pain; difficult, fast, noisy breathing, sometimes with wheezing blue lips and fingernails; pale skin; increased sweating; coughing that sometimes produces a pink frothy sputum; shortness of breath; swelling in legs and ankles) [Itraconazole]; *torsades de pointes* (chest pain or discomfort; irregular or slow heart rate; fainting; shortness of breath).

EXTREMITIES: *angioedema* (large, hive-like swelling on hands, legs, feet); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss) [Itraconazole]; *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness) [Itraconazole].

SKIN: *alopecia* (hair loss, thinning of hair); *disorders, skin, exfoliative, including Stevens-Johnson syndrome* (reddening, blistering, peeling, or loosening of skin and mucous membranes) [Fluconazole]; *necrolysis, epidermal, toxic* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *pruritus* (itching skin); *urticaria* (hives or welts; itching; redness of skin; skin rash) [Itraconazole].

GENERALITIES: *hypoadrenalism*; *hypersensitivity* (fever and chills; skin rash or itching); *alopecia* (hair loss, thinning of hair); *anaphylactoid and allergic reactions* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing) [Itraconazole]; *anaphylaxis* [Itraconazole]; *agranulocytosis* (fever and sore throat) [Fluconazole]; *angioedema* (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs); *congestive heart failure* (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing) [Itraconazole]; *death*; *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss) [Itraconazole]; *hepatitis* (dark urine; general tiredness and weakness; light-colored stools; nausea and

vomiting; upper right abdominal pain; yellow eyes and skin) [Itraconazole]; *hypercholesterolemia* (large amount of cholesterol in the blood); *hyperglycemia* (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting) [Itraconazole]; *hypertriglyceridemia* (large amount of triglyceride in the blood); *hypokalemia* (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); *necrolysis, epidermal, toxic* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness) [Itraconazole]; *neutropenia* (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *seizures* (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red, irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness) [Itraconazole]; *thrombocytopenia* (unusual bleeding or bruising) [Fluconazole].

DIAGNOSTIC TESTS: *agranulocytosis*; *hypercholesterolemia*; *hyperglycemia* [Itraconazole]; *hypertriglyceridemia*; *hypokalemia*; *neutropenia*; *QT prolongation*; *testosterone concentrations, serum, lowered* [Ketoconazole]; *thrombocytopenia* [Fluconazole].

Antifungals, Azole (Vaginal)

Commercial name(s): *Canesten 1-Day Cream Combi-Pak*; *Canesten 1-Day Therapy*; *Canesten 3-Day Therapy*; *Canesten 6-Day Therapy*; *Canesten Combi-Pak 1-Day Therapy*; *Canesten Combi-Pak 3-Day Therapy*; *Clotrimaderm*; *Ecostatin Vaginal Ovules*; *FemCare*; *Femizol-M*; *Femstat 3*; *Gyne-Lotrimin*; *Gyne-Lotrimin Combination Pack*; *Gyne-Lotrimin3*; *Gyne-Lotrimin3 Combination Pack*; *GyneCure*; *GyneCure Ovules*; *GyneCure Vaginal Ointment Tandempak*; *GyneCure Vaginal Ovules Tandempak*; *Miconazole-7*; *Micozole*; *Monazole 7*; *Monistat 1*; *Monistat 1 Combination Pack*; *Monistat 3*; *Monistat 3 Combination Pack*; *Monistat 3 Dual-Pak*; *Monistat 3 Vaginal Ovules*; *Monistat 5 Tampon*; *Monistat 7*; *Monistat 7 Combination Pack*; *Monistat 7 Dual-Pak*; *Monistat 7 Vaginal Suppositories*; *Mycelex Twin Pack*; *Mycelex-7*; *Mycelex-G*; *Myclo-Gyne*; *Novo-Miconazole Vaginal Ovules*; *Terazol 3*; *Terazol 3 Dual-Pak*; *Terazol 3 Vaginal Ovules*; *Terazol 7*; *Vagistat-1*.

Category: Antifungal (vaginal).

Conventional indications: Candidiasis, vulvovaginal (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache.*

STOMACH: *cramps; pain.*

ABDOMEN: *cramps or pain, abdominal.*

GENITALIA MALE: *burning or irritation of penis of sexual partner.*

GENITALIA FEMALE: *burning, discharge, itching, or other irritation, vaginal, not present before therapy; hypersensitivity (skin rash or hives).*

SKIN: *hypersensitivity (skin rash or hives).*

Antiglaucoma Agents, Cholinergic, Long-acting (Ophthalmic)

Commercial name(s): Diflupyl; Humorsol; Phospholine Iodide.

Category: Antiglaucoma agent (ophthalmic); Cyclostimulant (accommodative esotropia); Diagnostic aid (accommodative esotropia).

Conventional indications: Glaucoma (treatment) [Demecarium, echothiophate, and isofluorophate]; Glaucoma, open-angle (treatment) [Demecarium, echothiophate, and isofluorophate]; Glaucoma, angle-closure, after iridectomy (treatment) [Demecarium, echothiophate, and isofluorophate]; Glaucoma, secondary (treatment) [Echothiophate]; Esotropia, accommodative (diagnosis) or Esotropia, accommodative (treatment) [Demecarium, echothiophate, and isofluorophate].

Primary Actions or Pathogenetic Symptoms

HEAD: *headache.*

EYE: *hypotension; browache; burning, redness, stinging, or other irritation of eyes; cataracts; cysts, iris (following prolonged use, especially in children); detachment, retinal (veil or curtain appearing across part of vision); iritis, latent, activation of; miosis (difficulty in seeing at night or in dim light); obstruction of nasolacrimal canals (following prolonged use, especially in children); opacities, lens; pain; thickening, conjunctival (following prolonged use, especially in children); twitching of eyelids; uveitis, latent, activation of; watering of eyes.*

VISION: *detachment, retinal (veil or curtain appearing across part of vision); myopia, accommodative (blurred vision or change in near or distance vision).*

MOUTH: *watering of mouth.*

STOMACH: *cramps; nausea; pain; vomiting.*

RECTUM: *diarrhea.*

BLADDER: *control, bladder, loss of (urinary incontinence).*

RESPIRATION: *bronchospasm (shortness of breath, tightness in chest, or wheezing); difficulties, respiratory.*

CHEST: *bradycardia (slow or irregular heartbeat); bronchospasm (shortness of breath, tightness in chest, or wheezing); arrhythmias, cardiac.*

EXTREMITIES: *weakness, muscle.*

PERSPIRATION: *sweating, increased.*

GENERALITIES: *bradycardia (slow or irregular heartbeat); hypotension, severe (unusual tiredness or weakness); weakness, muscle; arrhythmias, cardiac; shock.*

Antihemophilic Factor (Systemic)

Commercial name(s): Advate; Alphanate; Bioclote; Helixate; Helixate FS; Hemofil M; Humate-P; Hyate:C; Koate-HP; Kogenate; Kogenate FS; Kogenate FS, Helixate FS; Monarc-M; Monoclote-P; Recombinate.

Category: Antihemorrhagic.

Conventional indications: Hemophilia A, hemorrhagic complications of (prophylaxis and treatment) [Antihemophilic factor (AHF)]; Hemorrhagic complications in patients with factor VIII inhibitors (prophylaxis and treatment) [AHF (Porcine)]; von Willebrand disease (treatment) or Hypofibrinogenemia (treatment) or Factor XIII deficiency (treatment) [Cryoprecipitated AHF]; Coagulation, disseminated intravascular (treatment adjunct) or Kasabach-Merritt syndrome (treatment adjunct) [Cryoprecipitated AHF].

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness; lightheadedness.*

HEAD: *headache.*

NOSE: *nosebleed.*

FACE: *flushing* (redness of face).

MOUTH: *dry mouth; taste, unpleasant.*

STOMACH: *nausea; vomiting.*

CHILL: *chills.*

FEVER: *fever.*

SKIN: *skin rash.*

GENERALITIES: *anaphylaxis or other allergic reaction to AHF, or to mouse, hamster, or bovine protein* (changes in facial skin color; fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; skin rash, hives, and/or itching) (may include anaphylactic shock with sudden, severe decrease in blood pressure and collapse); *anemia, hemolytic* (unusual tiredness or weakness) (primarily associated with the use of large volumes of low- or intermediate-purity factor VIII preparations in patients with group A, B, or AB red blood cell antigens); *burning, stinging, or inflammation at injection site* (swelling); fatigue (unusual tiredness or weakness); *thrombosis* (tenderness, pain, swelling, warmth, skin discoloration, and prominent superficial veins over affected area); *allergic reaction to albumin* (chills; fever; hives; nausea); *hyperfibrinogenemia; inhibitor antibodies, which neutralize the procoagulant activity of factor VIII; immune function, downmodulation of* (caused by the foreign proteins and alloantigens contained in the intermediate-purity concentrates, primarily by inhibiting phagocytic function of monocytes and macrophages and by inhibiting secretion of interleukin-); *paresthesias* (sensation of burning, warmth, heat, numbness, tightness, or tingling); *thrombocytopenia* (unusual bleeding or bruising) [AHF (Porcine)].

DIAGNOSTIC TESTS: *anemia, hemolytic; inhibitor antibodies (factor VIII); thrombocytopenia* [AHF (Porcine)].

Antihistamines (Systemic)

Commercial name(s): Aerius; Alavert; Allegra; Aller-Chlor; Aller-med; AllerMax Caplets; Allerdryl; Apo-Dimenhydrinate; Apo-Hydroxyzine; Atarax; Banophen; Banophen Caplets; Benadryl; Benadryl Allergy; Bromphen; Calm X; Chlo-Amine; Chlor-Trimeton; Chlor-Trimeton Allergy; Chlor-Trimeton Repetabs; Chlor-Tripolon; Chlorate; Clarinex; Claritin; Claritin RediTabs; Compoz; Contac Hour Allergy; Dexchlor; Dimetane; Dimetapp Allergy Liqui-Gels; Dinat; Diphen Cough; Diphenhist; Diphenhist Captabs; Dormarex ; Dramamine; Dramanate; Gen-Allerate; Genahist; Gravol; Gravol Filmkote; Gravol I/M; Gravol I/V; Gravol L/A; Gravol Liquid; Hydrate; Hyrexin; Hyzine-0; Multipax; Nasahist B; Nervine Nighttime Sleep-Aid; Nolahist; Novo-Hydroxyzin; Novo-Pheniram; Nytol QuickCaps; Nytol QuickGels; Optimine; PMS-Dimenhydrinate; PediaCare Allergy Formula; Periacin; Phenetron; Polaramine; Polaramine Repetabs; Reactine; Siladryl; Sleep-Eze D; Sleep-Eze D Extra Strength; Sleep-eze D Extra Strength; Sominex; Tavist; Tavist-; Telachlor; Teldrin; Traveltabs; Triptone Caplets; Twilite Caplets; Unisom Nighttime Sleep Aid; Unisom SleepGels Maximum Strength; Vistaril; Zyrtec.

Category: Antihistaminic (H-receptor) [Azatadine; Brompheniramine; Cetirizine; Chlorpheniramine; Clemastine; Cyproheptadine; Desloratadine; Dexchlorpheniramine; Dimenhydrinate; Diphenhydramine; Doxylamine; Fexofenadine; Hydroxyzine; Loratadine; Phenindamine]; Antianxiety agent [Hydroxyzine]; Antidyskinetic [Diphenhydramine]; Antiemetic [Dimenhydrinate; Diphenhydramine; Hydroxyzine (parenteral)]; Antitussive [Diphenhydramine Elixir]; Antivertigo agent [Dimenhydrinate; Diphenhydramine]; Sedative-hypnotic [Diphenhydramine; Doxylamine; Hydroxyzine]; Appetite stimulant [Cyproheptadine]; Vascular headache suppressant [Cyproheptadine]; Antiasthmatic [Cetirizine; Loratadine].

Conventional indications: Rhinitis, perennial and seasonal allergic or vasomotor (prophylaxis and treatment); Conjunctivitis, allergic (prophylaxis and treatment); Pruritus (treatment); Urticaria (treatment); Angioedema (treatment); Dermatographism (treatment); Transfusion reactions, urticarial (treatment); Sneezing (treatment); Rhinorrhea (treatment); Anaphylactic or anaphylactoid reactions (treatment adjunct); Anxiety (treatment) and Tension, psychosis-related (treatment) [Hydroxyzine]; Alcohol withdrawal (treatment) [Parenteral hydroxyzine]; Parkinsonism (treatment) or Extrapyrarnidal reactions, drug-induced (treatment) [Diphenhydramine]; Cough (treatment) [Diphenhydramine hydrochloride syrup]; Motion sickness (prophylaxis and treatment) or Vertigo (treatment) [Dimenhydrinate and diphenhydramine]; Nausea or vomiting (prophylaxis and treatment) [Parenteral hydroxyzine]; Sedation [Diphenhydramine and hydroxyzine]; Insomnia (treatment) [Diphenhydramine and doxylamine]; Analgesia adjunct, during surgery, Anesthesia, general, adjunct or Anesthesia, local, adjunct [Parenteral hydroxyzine]; Appetite, lack of (treatment) [Cyproheptadine]; Headache, vascular (treatment) [Cyproheptadine]; Asthma, bronchial (treatment adjunct) [Cetirizine and loratadine].

Primary Actions or Pathogenetic Symptoms

MIND: *gluttonous* [Cyproheptadine]; *peacefulness* (serenity, calm) [Diphenhydramine; Doxylamine; Hydroxyzine]; *confusion* [Azatadine, cetirizine, cyproheptadine,

diphenhydramine, and loratadine]; excitement, unusual; irritability; nervousness; restlessness.

VERTIGO: dizziness [except with brompheniramine and hydroxyzine].

HEAD: headache [Desloratadine].

VISION: blurred vision or any change in vision [Azatadine, Cetirizine, Cyproheptadine, Diphenhydramine, and Loratadine].

HEARING: ringing or buzzing in ears [Azatadine, cetirizine, cyproheptadine, and loratadine].

NOSE: dryness.

MOUTH: dryness.

THROAT: dryness; pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes) [Desloratadine].

STOMACH: appetite, increased [Cyproheptadine]; **pain** [Azatadine and Diphenhydramine] (less frequent with Cetirizine, Clemastine, Cyproheptadine, Loratadine); **nausea** [Azatadine and Diphenhydramine] (less frequent with Cetirizine, Clemastine, Cyproheptadine, Loratadine); **upset, gastrointestinal** [Azatadine and Diphenhydramine] (less frequent with Cetirizine, Clemastine, Cyproheptadine, Loratadine); appetite, loss of [Cetirizine, Chlorpheniramine, Cyproheptadine (rebound effect?), Loratadine]; dyspepsia (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain) [Desloratadine]; vomiting [Cyproheptadine].

ABDOMEN: upset, gastrointestinal [Azatadine and diphenhydramine] (less frequent with Cetirizine, Clemastine, Cyproheptadine, and Loratadine); cholestasis, hepatitis or other hepatic function abnormalities (abdominal or stomach pain; chills; clay-colored stools or dark urine; diarrhea; dizziness; fever; headache; itching).

RECTUM: constipation; diarrhea.

BLADDER: urination, difficult or painful [Azatadine, Cetirizine, Chlorpheniramine, Cyproheptadine, Dexchlorpheniramine, and Loratadine].

GENITALIA FEMALE: dysmenorrhea (difficult or painful menstruation) [Desloratadine]; menses, early.

CHEST: cardiac arrhythmias/palpitations/tachycardia (fast, pounding or irregular heartbeat or pulse) [Azatadine, Cetirizine, Clemastine, Cyproheptadine, Desloratadine, Dexchlorpheniramine, Diphenhydramine, Loratadine].

EXTREMITIES: coordination, abnormal (clumsiness or unsteadiness); myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving) [Desloratadine].

SLEEP: drowsiness.

DREAMS: nightmares.

PERSPIRATION: sweating, increased [Azatadine, Cetirizine, Chlorpheniramine, Cyproheptadine, and Loratadine].

SKIN: photosensitivity (increased sensitivity of skin to sun) [Azatadine, Cetirizine, Cyproheptadine, Loratadine]; skin rash [Azatadine, Brompheniramine, Cetirizine, Clemastine, Cyproheptadine, Loratadine]; urticaria (hives or welts; itching; redness of skin; skin rash) [Desloratadine].

GENERALITIES: thickening of mucus [Azatadine and Cyproheptadine] (less frequent

with Cyproheptadine, Dexchlorpheniramine and Diphenhydramine); **weight gain** [Cyproheptadine]; anaphylaxis (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); blood dyscrasias (sore throat; fever; unusual bleeding or bruising; unusual tiredness or weakness) [Azatadine, Brompheniramine, Cyproheptadine, Dexchlorpheniramine]; cardiac arrhythmias/palpitations/tachycardia (fast pounding or irregular heartbeat or pulse) [Azatadine, Cetirizine, Clemastine, Cyproheptadine, Desloratadine, Dexchlorpheniramine, Diphenhydramine, Loratadine]; convulsions; edema (swelling); fatigue (unusual tiredness or weakness); hepatitis (abdominal or stomach pain; chills; clay-colored stools or dark urine; diarrhea; dizziness; fever; headache; itching); myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving) [Desloratadine]; paresthesia or neuritis (burning; prickly sensations; tingling) [Dyproheptadine]; tremor; anticholinergic effects (clumsiness or unsteadiness; severe drowsiness; severe dryness of mouth, nose, or throat; flushing or redness of face; shortness of breath or troubled breathing) [especially with Azatadine and Clemastine]; CNS depression (severe drowsiness); CNS stimulation (hallucinations, seizures, trouble in sleeping); hypotension (feeling faint).

Secondary Actions or Rebound Effects: appetite, loss of [Cyproheptadine]; paradoxical reaction (nightmares; unusual excitement, nervousness, restlessness, or irritability) [except with Azatadine, Chlorpheniramine, Cyproheptadine, Desloratadine, Hydroxyzine, and Loratadine].

Antihistamines and Decongestants (Systemic)

Other commonly used names: Acrivastine and Pseudoephedrine; Azatadine and Pseudoephedrine; Brompheniramine and Phenylephrine; Brompheniramine and Pseudoephedrine; Carbinoxamine and Pseudoephedrine; Cetirizine and Pseudoephedrine; Chlorpheniramine and Phenylephrine; Chlorpheniramine, Phenyltoloxamine, and Phenylephrine; Chlorpheniramine and Pseudoephedrine; Chlorpheniramine, Pyrillamine, and Phenylephrine; Dexbrompheniramine and Pseudoephedrine; Diphenhydramine and Pseudoephedrine; Loratadine and Pseudoephedrine; Pheniramine and Phenylephrine; Promethazine and Phenylephrine; Triprolidine and Pseudoephedrine.

Commercial name(s): *Alavert-D 12-Hour; Aldex D; AllanVan-S; Allegra-D; BPM Pseudo; Benlyn For Allergies; Bromfed-PD; Ceron; Cold Relief; Corsym; Deconamine SR; Dimetapp Infant; Dimetapp Infant Drops; Ornade; Ornade A.F.; Pediatex 12D; Pediatex-D; Ryneze; Semprex-D; Snaplets-D; Tannate Pediatric; Triaminic Cold And Allergy; Tripohist D; Uni-Tann D; Zyrtec-D.*

Category: Antihistaminic (H₁-receptor)-decongestant.

Conventional indications: Congestion, nasal (treatment); Sneezing (treatment); Rhinorrhea (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; mood or mental changes* (psychotic episodes, usually associated with previous history of psychiatric illness).

VERTIGO: *dizziness.*

HEAD: *headache.*

VISION: *blurred vision.*

HEARING: *ringing or buzzing in ears.*

NOSE: *dryness.*

FACE: *dyskinesia, orofacial* (twitching, twisting, or uncontrolled repetitive movements of face).

MOUTH: *dryness.*

THROAT: *dryness.*

STOMACH: *appetite, loss of; pain* (more frequent with Antihistamine Ethylenediamine Derivatives); *upset, stomach* (more frequent with Antihistamine Ethylenediamine Derivatives).

ABDOMEN: *cholestasis* (stomach pain; light-colored stools; dark urine; diarrhea; fever; vomiting of blood; yellow eyes or skin).

BLADDER: *urination, difficult or painful.*

KIDNEYS: *glomerulonephritis* (bloody or cloudy urine; increased blood pressure; sudden decrease in amount of urine; swelling of face, fingers, feet, and/or lower legs; rapid weight gain).

GENTALIA FEMALE: *stillbirth.*

EXPECTORATION: *bronchial secretions, thickening of.*

CHEST: *heartbeat, pounding; arrhythmias, cardiac* (fast or irregular heartbeat); *tightness.*

SLEEP: *drowsiness* (more pronounced with antihistamine Ethanolamine derivatives; less pronounced with the Propylamine (Alkylamine) derivatives, Loratadine); *somnolence* (sleepiness or unusual drowsiness; extreme tiredness).

SKIN: *skin rash.*

GENERALITIES: *heartbeat, pounding; anaphylaxis* (skin rash or hives; troubled breathing; swollen mouth or throat); *anemia, hemolytic* (back, leg, or stomach pains; bleeding gums; dark urine; fatigue; fever; general body swelling; nosebleeds; pale or yellow skin or eyes); *arrhythmias, cardiac* (fast or irregular heartbeat); *blood dyscrasias* (fever; sore throat; unusual bleeding or bruising; unusual tiredness or weakness); *hepatitis* (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); *hypotension, severe* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position; sudden sweating; unusual tiredness or weakness); *thrombocytopenia* (black, tarry stools; chest pain; chills; swollen glands; unusual bleeding or bruising); anticholinergic effects (clumsiness or unsteadiness; severe dryness of mouth, nose, or throat; flushing or redness of face; shortness of breath or troubled breathing); CNS stimulation (hallucinations; seizures; trouble in sleeping); extrapyramidal effects (muscle spasms, especially of neck and back; restlessness; shuffling walk; tic-like [jerky] movements of head and face; trembling and shaking of hands) [Promethazine]; hypertension (headache, continuing; slow or fast heartbeat).

DIAGNOSTIC TESTS: *anemia, hemolytic; thrombocytopenia.*

Secondary Actions or Rebound Effects: paradoxical reaction (nightmares; unusual excitement, nervousness, restlessness, or irritability).

Antihistamines, Decongestants, and Analgesics (Systemic)

Other commonly used names: Brompheniramine, Pseudoephedrine, and Acetaminophen; Chlorpheniramine, Phenylephrine, and Acetaminophen; Chlorpheniramine, Pseudoephedrine, and Acetaminophen; Chlorpheniramine, Pyrillamine, Phenylephrine, and Acetaminophen; Dexbrompheniramine, Pseudoephedrine, and Acetaminophen; Diphenhydramine, Pseudoephedrine, and Acetaminophen; Pheniramine, Phenylephrine, and Acetaminophen; Pheniramine, Phenylephrine, Sodium Salicylate, and Caffeine; Triprolidine, Pseudoephedrine, and Acetaminophen.

Commercial name(s): *Alka-Seltzer Plus Cold and Sinus; Benadryl Total; Children's Tylenol Allergy-D; Children's Tylenol Cold Bubble Gum Flavor; Children's Tylenol Cold Cherry Flavor; Colds And Flu With Vitamin C Extra Strength; Colds And Flu With Vitamin C Regular Strength; Counteract Children's Cold Multi-Symptom Plus Cough; Daytime Cold/Flu Relief; Extra Strength Tylenol Allergy Sinus Multi-Symptom Relief; Extra Strength Tylenol Allergy Sinus Nighttime Relief; Extra Strength Tylenol Cold Daytime with Coolburst; Extra Strength Tylenol Flu Daytime; Genapap Sinus; Infants' Tylenol Plus Cold; Mapap Sinus PE; Sinutab Sinus; Sudafed PE Sinus Headache.*

Category: Antihistaminic (H -receptor)-decongestant-analgesic.

Conventional indications: Cold symptoms (treatment); Congestion, nasal (treatment); Congestion, sinus (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: confusion; psychotic episodes (mood or mental changes) (usually associated with previous history of psychiatric illness); behavior, changes in (in young children) [Salicylate-containing combinations]; coma [Acetaminophen-containing combinations]; encephalopathy, hepatic (with mental changes, confusion, agitation, or stupor) [Acetaminophen-containing combinations].

VERTIGO: dizziness.

HEAD: headache; edema, cerebral [Acetaminophen-containing combinations].

VISION: blurred vision.

HEARING: ringing or buzzing in ears.

NOSE: dryness.

FACE: swelling of face.

MOUTH: dryness.

THROAT: dryness.

STOMACH: **heartburn** [Salicylate-containing combinations]; **indigestion** [Salicylate-containing combinations]; **irritation, gastrointestinal** (mild stomach pain; nausea with or without vomiting) [Salicylate-containing combinations]; appetite, loss of; bleeding or ulceration, gastrointestinal (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds) [Salicylate-containing combinations]; pain; upset, stomach; cramps (early symptoms - may occur within to hours after ingestion

and persist for about hours) [Acetaminophen-containing combinations]; nausea [Acetaminophen-containing combinations]; vomiting [Acetaminophen-containing combinations].

ABDOMEN: **indigestion** [Salicylate-containing combinations]; **irritation, gastrointestinal** (mild stomach pain; nausea with or without vomiting) [Salicylate-containing combinations]; bleeding or ulceration, gastrointestinal (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds) [Salicylate-containing combinations]; failure, hepatic [Acetaminophen-containing combinations]; hepatotoxicity (symptoms may occur to days after ingestion) (pain or tenderness in upper abdominal area, swelling of abdominal area) [Acetaminophen-containing combinations]; overt hepatic disease [Acetaminophen-containing combinations].

RECTUM: bleeding, gastrointestinal (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds) [Salicylate-containing combinations]; diarrhea [Acetaminophen-containing combinations].

BLADDER: *urination, difficult, decreased or painful.*

KIDNEYS: *colic, renal* [Acetaminophen-containing combinations]; *tubular necrosis, renal* (bloody or cloudy urine, difficult or painful urination, sudden decrease in amount of urine) [Acetaminophen-containing combinations].

URINE: bloody or cloudy urine; *pyuria, sterile* (with prolonged use of high doses in patients with severe renal function impairment) [Acetaminophen-containing combinations]; ketonuria [Salicylate-containing combinations]; proteinuria [Salicylate-containing combinations].

RESPIRATION: bronchospastic allergic reaction (shortness of breath, troubled breathing, tightness in chest, or wheezing) [Salicylate-containing combinations]; breathing, fast or deep (in young children) [Salicylate-containing combinations]; depression, respiratory [Acetaminophen-containing combinations].

CHEST: bronchospastic allergic reaction (shortness of breath, troubled breathing, tightness in chest, or wheezing) [Salicylate-containing combinations]; heartbeat, pounding; tightness; arrhythmias, cardiac [Acetaminophen-containing combinations].

EXTREMITIES: *swelling of feet or lower legs.*

SLEEP: **drowsiness.**

PERSPIRATION: sweating, increased [Acetaminophen-containing combinations].

SKIN: *skin rash; allergic reactions* (skin rash; hives; itching).

GENERALITIES: **mucus, thickening of;** anaphylactoid reaction (bluish discoloration or flushing or redness of skin; coughing; difficulty in swallowing; severe dizziness or feeling faint; skin rash; hives [may include giant urticaria]; itching; stuffy nose; swelling of eyelids, face, or lips; tightness in chest, troubled breathing, and/or wheezing, especially in asthmatic patients) [Salicylate-containing combinations]; anemia (unusual tiredness or weakness); appetite, loss of; heartbeat, pounding; azotemia [Acetaminophen-containing combinations]; blood dyscrasias (sore throat; fever; unusual bleeding or bruising; unusual tiredness or weakness); hepatitis (yellow eyes or skin) [Acetaminophen-containing combinations]; uremia [Acetaminophen-containing combinations]; weight gain, unusual; anticholinergic effects (clumsiness or unsteadiness; severe dryness of mouth, nose, or throat; flushing or redness of face; shortness of breath or troubled breathing); arrhythmias, cardiac [Acetaminophen-containing combinations]; CNS stimulation (hallucinations;

seizures; trouble in sleeping); convulsions [Acetaminophen-containing combinations]; coma [Acetaminophen-containing combinations]; hypertension (continuing headache; fast heartbeat); hyperglycemia (especially in children) [Salicylate-containing combinations]; hypoglycemia; hypokalemia [Salicylate-containing combinations]; hyponatremia [Salicylate-containing combinations]; metabolic acidosis [Acetaminophen-containing combinations]; salicylism, mild (any loss of hearing; confusion; severe or continuing diarrhea; dizziness or lightheadedness; severe drowsiness; fast or deep breathing; severe or continuing headache; increased sweating; continuing nausea or vomiting; continuing ringing or buzzing in ears; severe or continuing stomach pain; uncontrollable flapping movements of the hands, especially in elderly patients; unusual thirst; vision problems) [Salicylate-containing combinations]; salicylism, severe (bloody urine; convulsions; fever; hallucinations; shortness of breath or troubled breathing) [Salicylate-containing combinations]; tiredness, severe (in young children) [Salicylate-containing combinations].

DIAGNOSTIC TESTS: anemia; bloody or cloudy urine; azotemia [Acetaminophen-containing combinations]; pyuria, sterile (with prolonged use of high doses in patients with severe renal function impairment) [Acetaminophen-containing combinations]; uremia [Acetaminophen-containing combinations]; hyperglycemia (especially in children) [Salicylate-containing combinations]; hypoglycemia; hypokalemia [Salicylate-containing combinations]; hyponatremia [Salicylate-containing combinations]; ketonuria [Salicylate-containing combinations]; metabolic acidosis [Acetaminophen-containing combinations]; proteinuria [Salicylate-containing combinations].

Secondary Actions or Rebound Effects: paradoxical reaction (nightmares; unusual excitement, nervousness, restlessness, or irritability); coagulation defects [Acetaminophen-containing combinations]; coagulation, intravascular, disseminated [Acetaminophen-containing combinations]; collapse, cardiovascular [Acetaminophen-containing combinations].

Antihistamines, Decongestants, and Anticholinergics (Systemic)

Commercial name(s): *Allerx-D; Dallerger; Extendryl JR; Extendryl SR; Phenylephrine CM; Rescon ER; Stahist.*

Category: Antihistaminic (H₁-receptor)-decongestant-anticholinergic.

Conventional indications: Congestion, nasal (treatment); Cold symptoms (treatment); Rhinitis, perennial and seasonal allergic or vasomotor (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: nervousness; restlessness; confusion; hallucinations (more frequent with high doses) [Pseudoephedrine]; psychotic episodes (mood or mental changes) (usually associated with previous history of psychiatric illness); excitement, nervousness, or restlessness, unusual [Pseudoephedrine].

VERTIGO: dizziness.

HEAD: headache.

VISION: blurred vision.

HEARING: *ringing or buzzing in ears.*

NOSE: *dryness.*

MOUTH: *dryness.*

THROAT: *dryness.*

STOMACH: *appetite, loss of; nausea; vomiting.*

BLADDER: *urination, difficult or painful.*

RESPIRATION: *breath, shortness of* (more frequent with high doses) [Pseudoephedrine]; *breathing, troubled* (more frequent with high doses) [Pseudoephedrine]; *breathing, fast* [Pseudoephedrine].

CHEST: *heartbeat, fast or pounding; heartbeat, irregular or slow* (more frequent with high doses) [Pseudoephedrine]; *tightness.*

SLEEP: *drowsiness; trouble in sleeping.*

PERSPIRATION: *sweating, increased.*

SKIN: *pale, unusual; skin rash; allergic reactions* (hives; itching; skin rash).

GENERALITIES: *mucus, thickening of; appetite, loss of; heartbeat, fast or pounding; trembling; weakness; blood dyscrasias* (sore throat; fever; unusual bleeding or bruising; unusual tiredness or weakness); *convulsions* (more frequent with high doses) [Pseudoephedrine]; *heartbeat, irregular or slow* (more frequent with high doses) [Pseudoephedrine]; anticholinergic effects (clumsiness or unsteadiness; severe dryness of mouth, nose, or throat; flushing or redness of face; shortness of breath or troubled breathing); blood pressure, increase in [Pseudoephedrine]; CNS stimulation (hallucinations; seizures; trouble in sleeping); hypertension (continuing headache; fast heartbeat).

Secondary Actions or Rebound Effects: *paradoxical reaction* (nightmares; unusual excitement, nervousness, restlessness, or irritability).

Antihistamines, Phenothiazine-derivative (Systemic)

Commercial name(s): Anergan ; Anergan 0; Antinaus 0; Histanil; Panectyl; Pentazine; Phenazine ; Phenazine 0; Phencen-0; Phenergan; Phenergan Fortis; Phenergan Plain; Phenerzine; Phenoject-0; Pro-0; Pro-Med 0; Promacot; Promet; Prorex-; Prorex-0; Prothazine; Prothazine Plain; Shogan; Tacaryl; V-Gan-; V-Gan-0.

Category: Antihistaminic (H₁-receptor) [Methdilazine; Promethazine; Trimeprazine]; Antiemetic [Promethazine]; Antivertigo agent [Promethazine]; Sedative-hypnotic [Promethazine; Trimeprazine].

Conventional indications: Rhinitis, perennial and seasonal allergic or vasomotor (treatment); Conjunctivitis, allergic (treatment); Pruritus (treatment); Urticaria (treatment); Angioedema (treatment); Dermatographism (treatment); Transfusion reactions, urticarial (treatment); Sneezing (treatment); Rhinorrhea (treatment); Anaphylactic or anaphylactoid reactions (treatment adjunct); Motion sickness (prophylaxis and treatment) or Vertigo (treatment) [Promethazine]; Nausea or vomiting (prophylaxis and treatment) [Promethazine]; Sedation [Promethazine and trimeprazine]; Pain, postoperative (treatment adjunct) [Promethazine]; Analgesia adjunct, during surgery, Anesthesia, general, adjunct or Anesthesia, local, adjunct [Intravenous administration of promethazine].

Primary Actions or Pathogenetic Symptoms

MIND: *peacefulness* (serenity, calm) [Promethazine; Trimeprazine]; *sedation* (drowsiness; sleepiness; relaxed and calm) (more pronounced with promethazine and less pronounced with trimeprazine and methdilazine, in that order); *confusion*; *catatonic-like state* (decreased awareness or responsiveness; mimicry of speech or movements; mutism; negativism; peculiar postures or movements, mannerisms or grimacing; severe sleepiness); *disorientation* (confusion about identity, place, and time); *euphoria* (false or unusual sense of well-being); *excitement*, *nervousness*, *irritability*, or *restlessness*, *unusual* (more likely to occur in children and elderly patients); *hallucinations* (seeing, hearing, or feeling things that are not there); *hysteria*; nervousness.

VERTIGO: *dizziness*; *faintness*.

HEAD: *stroke*, *heat*.

EYE: *edema*, *angioneurotic* (large, hive-like swelling on eyelids); *oculogyric crisis* (fixed position of eye).

VISION: *blurred vision or any change in vision*; *diplopia* (double vision; seeing double)

HEARING: *tinnitus* (continuing ringing or buzzing or other unexplained noise in ears; hearing loss).

NOSE: *dryness*; *stuffiness*.

FACE: *edema*, *angioneurotic* (large, hive-like swelling on face, lips).

MOUTH: *dryness*; *edema*, *angioneurotic* (large, hive-like swelling on tongue); *protrusion*, *tongue* (sticking out of tongue).

THROAT: *dryness*; *edema*, *angioneurotic* (large, hive-like swelling on throat).

EXTERNAL THROAT: *torticollis* (uncontrolled twisting movements of neck).

STOMACH: *appetite*, *loss of*; *nausea*; *vomiting*.

RECTUM: *burning or stinging of rectum* [Promethazine rectal dosage form].

BLADDER: *urination*, *difficult or painful*.

GENITALIA MALE: *edema*, *angioneurotic* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *edema*, *angioneurotic* (large, hive-like swelling on sex organs).

RESPIRATION: *apnea* (bluish skin or lips; not breathing); *asthma* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *depression*, *respiratory* (pale or blue lips, fingernails, or skin; difficult or troubled breathing; irregular, fast or slow, or shallow breathing; shortness of breath) (potentially fatal).

CHEST: *tachycardia* (fast heartbeat); *asthma* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *bradycardia* (chest pain or discomfort; lightheadedness, dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness).

EXTREMITIES: *edema*, *angioneurotic* (large, hive-like swelling on hands, legs, feet); *incoordination* (lack of coordination); *rigidity*, *muscle*.

SLEEP: *drowsiness*; *insomnia* (sleeplessness; trouble sleeping; unable to sleep); *somnolence* (sleepiness or unusual drowsiness).

DREAMS: *nightmares* (more likely to occur in children and elderly patients).

FEVER: *fever*, *drug*; *hyperpyrexia*.

PERSPIRATION: *sweating*, *increased*.

SKIN: *photosensitivity* (increased sensitivity of skin to sun); *skin rash*; *dermatitis*

(blistering, crusting, irritation, itching, or reddening of skin; cracked, dry, scaly skin; swelling); *thrombocytopenic purpura* (unusual bleeding or bruising; bloody nose; heavier menstrual periods; pinpoint red spots on skin; black, tarry stools; blood in urine; unusual tiredness or weakness; fever; skin rash); *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: **mucus, thickening of;** *appetite, loss of;* *blood dyscrasias* (sore throat; fever; unusual bleeding or bruising; unusual tiredness or weakness); *hypotension* (feeling faint); *tachycardia* (fast heartbeat); *agranulocytosis* (cough or hoarseness; fever with or without chills; general feeling of tiredness or weakness; lower back or side pain; painful or difficult urination; sore throat; sores, ulcers, or white spots on lips or in mouth; unusual bleeding or bruising); *blood pressure, increased* (headache; dizziness; weakness, numbness or tingling in arms or legs; trouble thinking, speaking or walking); *bradycardia* (chest pain or discomfort; lightheadedness, dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); *central nervous system (CNS) pathology, primary;* *death;* *edema, angioneurotic* (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs); *extrapyramidal symptoms* (difficulty in speaking; drooling; loss of balance control; muscle trembling, jerking, or stiffness; restlessness; shuffling walk; stiffness of limbs; twisting movements of body; uncontrolled movements, especially of face, neck, and back); *fatigue* (unusual tiredness or weakness); *jaundice* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *lassitude* (unusual weak feeling; loss of strength or energy; muscle pain or weakness); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *neuroleptic malignant syndrome (NMS)* (convulsions; difficulty in breathing; fast heartbeat; high fever; high or low blood pressure; increased sweating; loss of bladder control; severe muscle stiffness; unusually pale skin; tiredness); *seizures, convulsive* (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *thrombocytopenic purpura* (unusual bleeding or bruising; bloody nose; heavier menstrual periods; pinpoint red spots on skin; black, tarry stools; blood in urine; unusual tiredness or weakness; fever; skin rash); *tremors* (shakiness); anticholinergic effects (clumsiness or unsteadiness; severe drowsiness; severe dryness of mouth, nose, or throat; flushing or redness of face; shortness of breath or troubled breathing) (more likely to occur in children); CNS depression (severe drowsiness); CNS stimulation (hallucinations; seizures; trouble in sleeping) (more likely to occur in children)

DIAGNOSTIC TESTS: *agranulocytosis; leukopenia; thrombocytopenia.*

Secondary Actions or Rebound Effects: *paradoxical reaction* (nightmares; unusual excitement, nervousness, restlessness, or irritability).

Antimyasthenics (Systemic)

Commercial name(s): Mestinon; Mestinon Timespans; Mestinon-SR; Mytelase Caplets; Prostigmin; Regonol.

Category: Cholinergic (cholinesterase inhibitor) (is the basic category; the other categories are specific categories of use) [Ambenonium; Neostigmine; Pyridostigmine]; Antimyasthenic [Ambenonium; Neostigmine; Pyridostigmine]; Antidote (to nondepolarizing neuromuscular block) [Neostigmine (parenteral only); Pyridostigmine (parenteral only)]; Diagnostic aid (myasthenia gravis) [Neostigmine (parenteral only)].

Conventional indications: Myasthenia gravis (treatment) [Ambenonium, neostigmine, and pyridostigmine]; Ileus, gastrointestinal, postoperative (prophylaxis and treatment); or Urinary retention, postoperative (prophylaxis and treatment) [Parenteral neostigmine]; Neuromuscular blockade, nondepolarizing (treatment) [Parenteral neostigmine and pyridostigmine]; Myasthenia gravis (diagnosis) [Parenteral neostigmine].

Primary Actions or Pathogenetic Symptoms

MIND: clumsiness; confusion; fear; irritability, nervousness, restlessness, unusual; speech, slurred.

EYE: *pupils, unusually small; watering, unusual.*

VISION: blurred vision.

MOUTH: watering, increased (salivation); speech, slurred.

STOMACH: cramps; nausea; pain; vomiting; stimulation, gastrointestinal.

ABDOMEN: stimulation, gastrointestinal.

RECTUM: diarrhea.

BLADDER: *urge to urinate, frequent.*

RESPIRATION: breathing, difficulty in; wheezing.

EXPECTORATION: *bronchial secretions, increase in.*

CHEST: atelectasis; heartbeat, slow; tightness.

EXTREMITIES: *paralysis; thrombophlebitis* (redness, swelling, or pain at injection site) [Pyridostigmine injection]; clumsiness; cramps, muscle; twitching; unsteadiness; weakness or paralysis, muscle, increasing (arms).

PERSPIRATION: sweating, increased.

SKIN: *bromide ion of neostigmine or pyridostigmine, sensitivity to* (skin rash).

GENERALITIES: *paralysis; muscarinic effects* (diarrhea; increased sweating; increased watering of mouth; nausea or vomiting; stomach cramps or pain) (less frequent: frequent urge to urinate; increase in bronchial secretions; unusually small pupils; unusual watering of eyes) (overdose: blurred vision; severe diarrhea; excessive increase in bronchial secretions or salivation; severe vomiting; shortness of breath; troubled breathing; wheezing, or tightness in chest; slow heartbeat; severe stomach cramps or pain; unusual tiredness or weakness); *bromide ion of neostigmine or pyridostigmine, sensitivity to* (skin rash); *thrombophlebitis* (redness, swelling, or pain at injection site) [Pyridostigmine injection]; cholinergic crisis; CNS effects (clumsiness or unsteadiness; confusion; difficulty in breathing; seizures; slurred speech; unusual irritability, nervousness, restlessness, or fear); cramps, muscle; heartbeat, slow; hypokalemia (resulting from severe diarrhea and vomiting); nicotinic effects (increasing muscle weakness or paralysis, especially in the

arms, neck, shoulders, and tongue; muscle cramps or twitching); seizures; tiredness, unusual; twitching; weakness; weakness or paralysis, muscle, increasing (especially in the arms, neck, shoulders, and tongue).

DIAGNOSTIC TESTS: hypokalemia.

Antipyrine and Benzocaine (Otic)

Commercial name(s): A/B Otic; Allergen; Analgesic Otic; Antiben; Auralgan; Aurodex; Auroto; Dolotic; Ear Drops; Earache Drops; Otocalm.

Category: Analgesic-anesthetic (otic); Cerumen removal adjunct.

Primary Actions or Pathogenetic Symptoms

EAR: *anesthesia; pain absence; allergic reaction, local* (itching, burning, redness, or oozing sores in the ear).

Antithrombin III (Systemic)

Commercial name(s): ATnativ; Thrombate III.

Category: Anticoagulant; Antithrombotic.

Conventional indications: Thromboembolism associated with hereditary antithrombin III deficiency (prophylaxis); Thromboembolism associated with hereditary antithrombin III deficiency (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

BLADDER: *diuretic effects.*

KIDNEYS: *diuretic effects.*

RESPIRATION: *dyspnea* (at a too-rapid rate of administration); *shortness of breath.*

CHEST: *pain; tightness.*

FEVER: *fever.*

SKIN: *hematoma; hives; oozing.*

GENERALITIES: *bleeding; diuretic effects; vasodilatory effects; blood pressure, fall in; blood pressure, increased* (at a too-rapid rate of administration); *hematoma; oozing.*

Secondary Actions or Rebound Effects: *coagulation, intravascular, disseminated, severe.*

Antithyroid Agents (Systemic)

Commercial name(s): Propyl-Thyracil; Tapazole.

Category: Antihyperthyroid agent.

Conventional indications: Hyperthyroidism (treatment) [Methimazole and propylthiouracil].

Primary Actions or Pathogenetic Symptoms

MIND: listlessness.

VERTIGO: dizziness.

HEAD: headache.

FACE: neuropathy, peripheral (numbness or tingling of face).

MOUTH: taste, loss of [Methimazole]; sialadenopathy (swollen salivary glands).

EXTERNAL THROAT: hypothyroidism; goiter (swelling in the front of the neck).

STOMACH: nausea; pain; vomiting.

ABDOMEN: jaundice, cholestatic (yellow eyes or skin) [Methimazole]; necrosis, hepatic (yellow eyes or skin) (primarily with propylthiouracil).

RECTUM: constipation.

KIDNEYS: nephritis (backache; increase or decrease in urination; swelling of feet or lower legs) [Methimazole]; vasculitis, renal (usually with Propylthiouracil) (backache; increase or decrease in urination; swelling of feet or lower legs).

GENITALIA FEMALE: menstrual periods, changes in.

RESPIRATION: pneumonitis, interstitial (cough or shortness of breath) [Propylthiouracil].

CHEST: pneumonitis, interstitial (cough or shortness of breath) [Propylthiouracil].

EXTREMITIES: arthralgias or arthritis or vasculitis (pain, swelling, or redness in joints) (usually with Propylthiouracil); neuropathy, peripheral (numbness or tingling of fingers or toes); aches, muscle.

SLEEP: sleepiness.

CHILL: coldness.

FEVER: fever, mild and transient.

SKIN: itching; skin rash (usually maculopapular eruptions); allergic reaction; dry, puffy skin.

GENERALITIES: hypothyroidism; leukopenia (continuing or severe fever or chills, throat infection, cough, mouth sores, or hoarseness); agranulocytosis (continuing or severe fever or chills, throat infection, cough, mouth sores, or hoarseness); arthralgias or arthritis or vasculitis (pain, swelling, or redness in joints) (usually with Propylthiouracil); lupus-like syndrome (fever or chills; general feeling of discomfort or illness or weakness) (usually with Propylthiouracil); neuropathy, peripheral (numbness or tingling of fingers, toes, or face); vasculitis (usually with Propylthiouracil); anemia, aplastic (continuing or severe fever or chills, throat infection, cough, mouth sores, or hoarseness); death (due to agranulocytosis, or hepatic necrosis); hypoprothrombinemia [Propylthiouracil]; jaundice, cholestatic (yellow eyes or skin) [Methimazole]; lymphadenopathy (swollen lymph nodes); thrombocytopenia (rarely, increase in bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); tiredness, unusual; weakness; weight gain, unusual.

DIAGNOSTIC TESTS: leukopenia; agranulocytosis; anemia, aplastic; hypoprothrombinemia [Propylthiouracil]; thrombocytopenia.

Antivenin (Crotalidae) Polyvalent (Systemic)

Other commonly used names are: Antivenin Crotalid Serum; Pit Viper Antivenin.

Category: Antivenin.

Conventional indications: Envenomation, pit viper (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *apprehension.*

FACE: *edema.*

MOUTH: *edema of the tongue.*

THROAT: *edema.*

STOMACH: *vomiting.*

RESPIRATION: *dyspnea; cyanosis.*

COUGH: *cough.*

SKIN: *flushing; itching; urticaria.*

GENERALITIES: **anaphylactic reaction** (difficulty in breathing or swallowing; hives; itching, especially of feet or hands; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); **serum sickness** (enlargement of the lymph glands; fever; generalized rash and itching; inflammation of joints); *collapse; cyanosis; flushing; hypersensitivity reactions, immediate* (anaphylaxis and shock).

Antivenin (Crotalidae) Polyvalent Immune Fab (Ovine) (Systemic)

Commercial name(s): CroFab.

Category: Antivenin.

Conventional indications: Envenomation, pit viper (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness; sputum, increased production.*

EYE: *angioedema* (large, hive-like swellings on the eyelids).

FACE: *angioedema* (large, hive-like swellings on the face and/or lips); *paresthesia, circumoral* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings).

MOUTH: *angioedema* (large, hive-like swellings on the mouth and/or tongue).

STOMACH: *nausea; anorexia* (loss of appetite).

LARYNX AND TRACHEA: *edema, laryngeal* (difficulty in swallowing)

RESPIRATION: *asthma* (difficulty in breathing; shortness of breath; wheezing); *bronchospasm with cough or wheezing; stridor* (noisy breathing); wheezing.

COUGH: *cough.*

CHEST: *asthma* (difficulty in breathing; shortness of breath; wheezing); *bronchospasm with cough or wheezing; pain; tachycardia* (fast heartbeat).

BACK: *pain.*

EXTREMITIES: *myalgia* (muscle pain).

CHILL: *chills.*

FEVER: *fever.*

SKIN: **pruritus** (itching of skin); **skin rash**; **urticaria** (hives or welts; itching of skin; skin rash); cellulitis (chills; local pain, redness, and swelling; unusual tiredness or weakness); erythema (redness of skin); infection, wound (chills; discharge from wound; pain, tenderness, and warmth at wound site; unusual tiredness or weakness); nodules, subcutaneous (hard bumps under the skin).

GENERALITIES: **coagulation disorder** (unexplained bleeding or bruising); allergic reaction; angioedema (large, hive-like swellings on the eyelids, face, lips, mouth, and/or tongue); ecchymosis (unusual bruising); hypotension (dizziness or lightheadedness); infection, wound (chills; discharge from wound; pain, tenderness, and warmth at wound site; unusual tiredness or weakness); myalgia (muscle pain); paresthesia (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); serum reaction, late (pruritus; skin rash; urticaria); serum sickness (arthralgia; fever; myalgia; pruritus; skin rash); tachycardia (fast heartbeat); *anaphylactic, anaphylactoid, or allergic reaction*.

Antivenin (Latrodectus Mactans) (Systemic)

Other commonly used names are: Antivenin-spider.

Category: Antivenin.

Conventional indications: Envenomation, black widow spider (treatment).

Primary Actions or Pathogenetic Symptoms

GENERALITIES: anaphylactic reaction (difficulty in breathing or swallowing; hives; itching, especially of feet or hands; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); serum sickness (feeling of discomfort; fever; inflammation of joints; itching; muscle aches; rash; swollen lymph glands).

Antivenin (Micrurus Fulvius) (Systemic)

Category: Antivenin.

Conventional indications: Envenomation, North American coral snake (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *apprehension*.

FACE: *edema*.

MOUTH: *edema of the tongue*.

THROAT: *edema*.

STOMACH: *vomiting*.

RESPIRATION: *dyspnea; cyanosis*.

COUGH: *cough*.

SKIN: *flushing; itching; urticaria*.

GENERALITIES: **anaphylactic reaction** (difficulty in breathing or swallowing; hives; itching, especially of feet or hands; reddening of skin, especially around ears; swelling of

eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); **serum sickness** (enlargement of the lymph glands; fever; generalized rash and itching; inflammation of joints); *collapse*; *cyanosis*; *flushing*; *hypersensitivity reactions, immediate* (anaphylaxis and shock).

Appetite Suppressants, Sympathomimetic (Systemic)

Commercial name(s): Adipex-P; Adipost; Bontril PDM; Bontril Slow-Release; Didrex; Fastin; Ionamin; Mazanor; Melfiat; Obenix; Obezine; PT ; Phendiet; Phendiet-; Phentercot; Phentride; Plegine; Prelu-; Pro-Fast; Sanorex; Tenuate; Tenuate Dospan; Tepanil Ten-Tab; Teramine; Zantryl.

Category: Appetite suppressant.

Conventional indications: Obesity, exogenous (treatment) [Benzphetamine, diethylpropion, mazindol, phendimetrazine, and phentermine].

Primary Actions or Pathogenetic Symptoms

MIND: *mania* (talking, feeling, and acting with excitement and activity you cannot control); *depression, mental*; *psychosis* (feeling that others can hear your thoughts; feeling that others are watching you or controlling your behavior; feeling, seeing, or hearing things that are not there) (may be more likely to occur in patients with a family history of affective illness or psychosis); *hyperactivity*; *irritability, severe*; *personality changes*; coma; confusion; hallucinations (seeing, hearing, or feeling things that are not there); hostility with assaultiveness; panic state; restlessness.

VERTIGO: *dizziness*; *lightheadedness*; *syncope*.

HEAD: *headache*; *cerebral ischemia or stroke* (headache, severe; numbness, especially on one side of the face or body).

VISION: *blurred vision*.

MOUTH: *dryness*; *taste, unpleasant*.

STOMACH: *appetite, loss of*; *cramps*; *nausea*; *pain*; *vomiting*.

ABDOMEN: *cramps, abdominal*.

RECTUM: *constipation*; *diarrhea*.

BLADDER: *dysuria* (difficult or painful urination); *polyuria* (frequent urge to urinate or increased urination).

GENITALIA MALE: *impotence* (decreased sexual ability); *libido, changes in* (changes in sexual desire).

GENITALIA FEMALE: *libido, changes in* (changes in sexual desire).

RESPIRATION: *dyspnea*; *breathing, fast*.

CHEST: *cardiomyopathy*; *heart disease, valvular* (decreased ability to exercise; swelling of feet or lower legs; trouble in breathing); *hypertension, primary pulmonary (PPH)* (chest pain; decreased ability to exercise; fainting; swelling of feet or lower legs; trouble in breathing); *palpitation* (fast or irregular heartbeat); *angina pectoris*; *arrhythmias*; *murmur, heart*.

EXTREMITIES: *edema, lower extremity*; *trembling*.

SLEEP: *drowsiness*; *insomnia, severe* (trouble in sleeping); *trouble in sleeping*.

DREAMS: *nightmares*.

FEVER: hyperthermia (fever).

PERSPIRATION: *sweating, increased*.

SKIN: *allergic reaction* (skin rash or hives); *dermatoses, severe* (skin disease).

GENERALITIES: **blood pressure, elevated**; **CNS stimulation** (false sense of well-being or mild euphoria; irritability; nervousness or restlessness; trembling or shaking; trouble in sleeping) (may be followed by drowsiness, fatigue, or mental depression); *agranulocytosis or leukopenia* (sore throat and fever; unusual bleeding or bruising) [Diethylpropion]; *palpitation* (fast or irregular heartbeat); arrhythmias; blood pressure, irregular; collapse, circulatory (dizziness, lightheadedness, or fainting; irregular heartbeat); convulsions; coma; death; hyperreflexia (overactive reflexes); *fatigue, severe* (extreme tiredness or weakness) (rebound effect?); *tremor* (trembling or shaking); arrhythmias;.

Secondary Actions or Rebound Effects: *fatigue, severe* (extreme tiredness or weakness).

Apraclonidine (Ophthalmic)

Commercial name(s): *Iopidine*.

Category: Antiglaucoma agent (ophthalmic); Antihypertensive, ocular.

Conventional indications: Glaucoma, open angle (treatment); Hypertension, ocular (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression; nervousness*.

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *hypotension*; **allergic reaction** (redness of eye; itching of eye; tearing of eye); **blanching, conjunctival** (paleness of eye or inner lining of eyelid); **discomfort**; **mydriasis** (increase in size of pupil of eye); *blepharitis*; *blepharoconjunctivitis*; *conjunctivitis* (redness of eye, eyelid, or inner lining of eyelid); *crusting or scales on eyelid or corner of eye*; *dermatitis, contact* (rash around eyes); *discharge*; *dry*; *edema of eye, eyelid, or conjunctiva* (swelling of eye, eyelid, or inner lining of eyelid); *erosion, corneal*; *infiltrate, corneal*; *inflammation or injection, ocular* (redness of eye); *keratitis*; *keratopathy* (eye redness, irritation, or pain); *lid retraction* (raising of upper eyelid); *photophobia* (increased sensitivity of eyes to light); *sensation, foreign body*; *staining, corneal* (discoloration of white part of eye).

VISION: *blurred vision or change in vision*.

NOSE: *dry*; *parosmia* (change in smell); *rhinitis* (runny nose).

FACE: *edema* (swelling of face).

MOUTH: **dryness**; *taste perversion* (change in taste or smell).

THROAT: *pharyngitis* (sore throat).

STOMACH: *nausea*.

RECTUM: *constipation*.

RESPIRATION: *asthma* (wheezing or troubled breathing); *dyspnea* (troubled breathing)

CHEST: arrhythmia (irregular heartbeat); asthma (wheezing or troubled breathing); pain
EXTREMITIES: abnormal coordination (clumsiness or unsteadiness); edema, peripheral (swelling of hands or feet); myalgia (muscle aches); paresthesia (numbness or tingling in fingers or toes).

SLEEP: insomnia (trouble in sleeping); somnolence (drowsiness or sleepiness).

SKIN: dermatitis, contact (rash around eyes).

GENERALITIES: arrhythmia (irregular heartbeat); asthenia (tiredness or weakness); malaise (general feeling of discomfort or illness); myalgia (muscle aches).

Aprepitant (Systemic)

Commercial name(s): *Emend*.

Category: Antiemetic.

Conventional indications: Nausea and vomiting, cancer chemotherapy-induced (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: disorientation (confusion about identity, place, and time).

VERTIGO: dizziness.

HEAD: headache.

EYE: angioedema (large, hive-like swelling on eyelids).

FACE: angioedema (large, hive-like swelling on face, lips).

MOUTH: stomatitis (swelling or inflammation of the mouth); angioedema (large, hive-like swelling on tongue).

THROAT: pain, pharyngolaryngeal (sore throat); angioedema (large, hive-like swelling on throat).

STOMACH: anorexia (loss of appetite, weight loss); dyspepsia (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); heartburn, hiccups; discomfort, epigastric (pain or discomfort in chest, upper stomach, or throat, heartburn); gastritis (burning feeling in chest or stomach, tenderness in stomach area, stomach upset, indigestion); pain, abdominal (stomach pain).

ABDOMEN: pain, abdominal (stomach pain); ulcer, duodenal, perforating (burning upper abdominal pain; loss of appetite; nausea; vomiting).

RECTUM: diarrhea.

GENITALIA MALE: angioedema (large, hive-like swelling on sex organs).

GENITALIA FEMALE: angioedema (large, hive-like swelling on sex organs).

LARYNX AND TRACHEA: pain, pharyngolaryngeal (sore throat).

CHEST: bradycardia (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath, slow or irregular heartbeat; unusual tiredness).

EXTREMITIES: angioedema (large, hive-like swelling on hands, legs, feet)

SLEEP: drowsiness (sleepiness).

SKIN: urticaria (hives or welts; itching; redness of skin, skin rash).

GENERALITIES: asthenia (lack or loss of strength); dehydration (confusion, decreased urination, dizziness, dry mouth, fainting, increase in heart rate, lightheadedness, rapid

breathing, sunken eyes, thirst, unusual tiredness or weakness, wrinkled skin); **fatigue** (unusual tiredness or weakness); *hot flush*; *neutropenia* (black or tarry stools, chills, cough, fever, lower back or side pain, painful or difficult urination, pale skin, shortness of breath, sore throat, ulcers, sores or white spots in mouth, unusual bleeding or bruising, unusual tiredness or weakness); *bradycardia* (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath, slow or irregular heartbeat; unusual tiredness); *Steven-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness)

DIAGNOSTIC TESTS: *neutropenia*.

Secondary Actions or Rebound Effects: nausea.

Aprotinin (Systemic)

Commercial name(s): *Trasylol*.

Category: Antifibrinolytic; Antihemorrhagic; Proteinase inhibitor.

Conventional indications: Hemorrhage, coronary artery bypass graft surgery–associated (prophylaxis).

Primary Actions or Pathogenetic Symptoms

GENERALITIES: *coagulation*; *allergic reaction* (skin eruptions, itching, dyspnea, nausea, tachycardia, hypotension, and bronchospasm); *anaphylaxis, including shock with circulatory failure*.

Arbutamine (Systemic)

Commercial name(s): *GenESA*.

Category: Diagnostic aid, coronary artery disease.

Conventional indications: Coronary artery disease (CAD) (diagnosis).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety*.

VERTIGO: *dizziness*.

HEAD: headache.

FACE: *flushing or hot flushes* (redness of face).

MOUTH: *dry*; *taste perversion* (change in sense of taste).

STOMACH: *nausea*.

RESPIRATION: *dyspnea* (difficult or labored breathing); *asthmatic episodes, life-threatening or less severe*.

CHEST: **angina pectoris** (chest pain, severe); **arrhythmias, cardiac, ventricular and supraventricular**; *pain*; *palpitations* (heartbeat sensations); *asthmatic episodes, life-threatening or less severe*; *heart rate and systolic blood pressure, rapid increases in*; *ischemia, myocardial*; fibrillation, ventricular; tachyarrhythmias.

EXTREMITIES: *hypoesthesia* (decreased touch sensation).

PERSPIRATION: *sweating, increased.*

SKIN: *paresthesia* (burning or tingling skin sensation); *skin rash.*

GENERALITIES: **arrhythmias, cardiac, ventricular and supraventricular; hypotension** (dizziness, lightheadedness, or fainting); **tremor;** *fatigue* (unusual tiredness); *flushing or hot flushes* (redness of face); *hypoesthesia* (decreased touch sensation); *pain, nonspecific; palpitations* (heartbeat sensations); *paresthesia* (burning or tingling skin sensation); *allergic-type reactions* (including anaphylactic symptoms and life-threatening or less severe asthmatic episodes) (caused by sodium metabisulfite contained in Arbutamine injection); *death* (life-threatening asthmatic episodes); *heart rate and systolic blood pressure, rapid increases in; heart rate (HR) response, plateau in; ST segment depression; hypertension;* paradoxical decreases in heart rate and systolic blood pressure (rebound effect?); tachyarrhythmias.

DIAGNOSTIC TESTS: *heart rate (HR) response, plateau in; ST segment depression.*

Secondary Actions or Rebound Effects: paradoxical decreases in heart rate and systolic blood pressure.

Ardeparin (Systemic)

Commercial name(s): *Normiflo.*

Category: Anticoagulant; Antithrombotic.

Conventional indications: Thromboembolism, pulmonary (prophylaxis); Thrombosis, deep venous (prophylaxis).

Primary Actions or Pathogenetic Symptoms

NOSE: *epistaxis.*

STOMACH: *nausea; vomiting.*

STOOL: *blood in stools.*

URINE: *hematuria.*

BACK: *hematoma, epidural or spinal* (back pain; bowel/bladder dysfunction; leg weakness; numbness; paralysis; paresthesias); *pain.*

FEVER: *fever.*

SKIN: *hematoma at injection site* (deep, dark purple bruise, pain, or swelling at place of injection); *allergic reaction* (fever; skin rash, hives, or itching); *bruising, easy; petechiae.*

GENERALITIES: **hemorrhage** (bleeding gums; coughing up blood; difficulty in breathing or swallowing; dizziness; headache; increased menstrual flow or vaginal bleeding; nosebleeds; paralysis; prolonged bleeding from cuts; red or dark brown urine; red or black, tarry stools; shortness of breath; unexplained pain, swelling, or discomfort, especially in the chest, abdomen, joints, or muscles; unusual bruising; vomiting of blood or coffee ground-like material; weakness); *anemia; hematoma at injection site* (deep, dark purple bruise, pain, or swelling at place of injection); *allergic reaction* (fever; skin rash, hives, or itching); *thrombocytopenia* (bleeding from mucous membranes; rash consisting of

pinpoint, purple-red spots, often beginning on the legs; unusual bruising); *pain at injection site*.

DIAGNOSTIC TESTS: anemia; hematuria; thrombocytopenia.

Argatroban (Systemic)

Commercial name(s): *Acova*.

Category: Anticoagulant.

Conventional indications: Heparin-induced thrombocytopenia (prophylaxis and treatment); Thrombosis, percutaneous coronary intervention–related (prophylaxis).

Primary Actions or Pathogenetic Symptoms

STOMACH: hemorrhage, gastrointestinal (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); nausea; vomiting.

ABDOMEN: hemorrhage, gastrointestinal (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); pain, abdominal.

RECTUM: **diarrhea** (increased bowel movements; loose stools); hemorrhage, gastrointestinal (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

BLADDER: **hemorrhage, genitourinary, and hematuria** (blood in urine; lower back pain; pain or burning while urinating).

URINE: hematuria (blood in urine).

GENITALIA MALE: **hemorrhage, genitourinary** (blood in urine; lower back pain; pain or burning while urinating).

GENITALIA FEMALE: **hemorrhage, genitourinary** (blood in urine; lower back pain; pain or burning while urinating).

COUGH: coughing; hemoptysis (coughing or spitting up blood).

CHEST: **arrest, cardiac** (chest pain; irregular heartbeat; heart failure); hemoptysis (coughing or spitting up blood); tachycardia, ventricular (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations).

FEVER: **fever**.

GENERALITIES: *anticoagulation, excessive, with or without bleeding; bleeding; hypotension* (blurred vision; confusion; dizziness, faintness, or light-headedness when getting up from a lying or sitting position; sudden sweating; unusual tiredness or weakness); tachycardia, ventricular (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations).

DIAGNOSTIC TESTS: hematuria; tachycardia, ventricular.

Aripiprazole (Systemic)

Commercial name(s): *Abilify*.

Category: Antipsychotic.

Conventional indications: Bipolar mania (treatment); Schizophrenia (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **agitation** (anxiety; nervousness; restlessness; irritability; dry mouth; shortness of breath; hyperventilation; trouble sleeping; irregular heartbeats; shaking); **akathisia** (inability to sit still; need to keep moving; restlessness); **anxiety** (fear; nervousness); consciousness, loss of .

VERTIGO: **lightheadedness**.

HEAD: **headache**.

EYE: *angioedema* (large, hive-like swelling on eyelids).

VISION: *blurred vision*.

NOSE: *rhinitis* (stuffy nose; runny nose; sneezing).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *salivation, increased*; *angioedema* (large, hive-like swelling on tongue).

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); *angioedema* (large, hive-like swelling on throat).

STOMACH: **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); **nausea**; **vomiting**.

RECTUM: **constipation** (difficulty having a bowel movement (stool)); diarrhea.

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling sex organs).

LARYNX AND TRACHEA: *laryngospasm* (shortness of breath; trouble in breathing; tightness in chest; or wheezing).

RESPIRATION: *laryngospasm* (shortness of breath; trouble in breathing; tightness in chest; or wheezing).

COUGH: *coughing*.

CHEST: tachycardia (fast, pounding, or irregular heartbeat or pulse).

EXTREMITIES: **akathisia** (inability to sit still; need to keep moving; restlessness); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *angioedema* (large, hive-like swelling on hands, legs, feet); *tardive dyskinesia* (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs).

SLEEP: **insomnia** (sleeplessness; trouble sleeping; unable to sleep); **somnolence** (sleepiness or unusual drowsiness).

FEVER: *fever*.

SKIN: **rash**; *pruritus* (itching skin); *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: **asthenia** (lack or loss of strength); **extrapyramidal syndrome** (difficulty in speaking; drooling; loss of balance control; muscle trembling, jerking, or stiffness; restlessness; shuffling walk; stiffness of limbs; twisting movements of body; uncontrolled movements, especially of face, neck, and back); **weight gain**; *hypertension* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); *injury, accidental*; *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *tremor*; *anaphylactic reaction*

(cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *angioedema* (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs); tachycardia (fast, pounding, or irregular heartbeat or pulse); *neuroleptic malignant syndrome (NMS)* (convulsions; difficulty in breathing; fast heartbeat; high fever; high or low blood pressure; increased sweating; loss of bladder control; severe muscle stiffness; unusually pale skin; tiredness).

Secondary Actions or Rebound Effects: *seizures* (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); *tardive dyskinesia* (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs).

Arsenic Trioxide (Systemic)

Commercial name(s): *Trisenox*.

Category: Antineoplastic.

Conventional indications: Leukemia, acute promyelocytic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; depression, mental; agitation; coma* (loss of consciousness); *confusion*.

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *dry; edema, eyelid* (swelling or puffiness of face or eyelids); *pain; redness*.

VISION: *blurred vision*.

EAR: *ache*.

HEARING: *tinnitus* (ringing in the ears).

NOSE: *epistaxis* (nosebleed); *sinusitis* (headache); *nasopharyngitis* (cough; sore throat).

FACE: *edema* (bloating, swelling or puffiness of face).

MOUTH: *blistering, oral* (blisters inside mouth); *candidiasis, oral* (sore mouth or tongue; white patches in mouth and/or on tongue); *dry*.

THROAT: *sore throat; nasopharyngitis* (cough; sore throat).

EXTERNAL THROAT: *pain, neck*.

STOMACH: *nausea; vomiting; anorexia* (loss of appetite); *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

ABDOMEN: *pain, abdominal; distention, abdominal* (swelling of abdominal or stomach area); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

RECTUM: *diarrhea; constipation; diarrhea, hemorrhagic* (loose, bloody stools); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); *incontinence, fecal* (loss of bowel control).

BLADDER: *incontinence, urinary* (loss of bladder control); *oliguria* (decrease in amount of urine).

KIDNEYS: *dysfunction, renal* (decrease in urine output or decrease in urine-concentrating ability; cloudy urine).

GENITALIA FEMALE: *hemorrhage, vaginal* (heavy nonmenstrual vaginal bleeding); *bleeding, intermenstrual* (uterine bleeding between menstrual periods).

RESPIRATION: **dyspnea** (shortness of breath; difficult or labored breathing); *hypoxia* (bluish lips and skin); *infection, upper respiratory tract*; *wheezing*; *tachypnea* (rapid, shallow breathing).

COUGH: **cough**; *hemoptysis* (coughing or spitting up blood).

CHEST: **tachycardia** (rapid heartbeat); *effusion, pleural* (chest pain; shortness of breath); *pain*; *palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); *atrioventricular block* (chest pain; dizziness; fainting; pounding, slow heartbeat; troubled breathing; unusual tiredness or weakness); *hemoptysis* (coughing or spitting up blood).

BACK: *pain*.

EXTREMITIES: *arthralgia* (joint and muscle pain); *edema* (bloating or swelling of hands, lower legs, and/or feet); *myalgia* (muscle pain); *pain, bone*; *pain, limb*; weakness, muscle.

SLEEP: *insomnia* (trouble sleeping or getting to sleep).

CHILL: *rigors* (shivering chills).

FEVER: **fever**.

PERSPIRATION: *sweating*; *sweats, night*.

SKIN: *dermatitis* (itchy, red skin; swelling); *flushing*; *pallor* (pale skin); *petechiae* (small red or purple spots on skin); *pruritus* (itching).

GENERALITIES: **fatigue** (unusual tiredness or weakness); **hyperleukocytosis** (chills; cough; eye pain; general feeling of illness; headache; sore throat; unusual tiredness); **hypokalemia** (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); **tachycardia** (rapid heartbeat); *acute promyelocytic leukemia (APL) differentiation syndrome* (chest pain; chills; cough; difficult or labored breathing; fever; shortness of breath; sore throat; unusual tiredness or weakness; weight gain) (syndrome can be fatal); *anemia*; *edema* (rapid weight gain; bloating or swelling of face, hands, lower legs, and/or feet); *ecchymosis* (bruising); *flushing*; *hyperglycemia* (blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; loss of consciousness; nausea; stomachache; sweating; troubled breathing; unexplained weight loss; vomiting); *hyperkalemia* (abdominal pain; nausea or vomiting; weakness); *hypertension* (high blood pressure); *hypocalcemia* (abdominal cramps; confusion; irregular heartbeats; muscle cramps in hands, arms, feet, legs, or face; numbness and tingling around the mouth, fingertips, or feet); *hypomagnesemia* (muscle trembling or twitching); *hypotension* (low blood pressure; dizziness or lightheadedness); *hypoxia* (bluish lips and skin); *infection, upper respiratory tract*; *injection site pain, redness, and swelling*; *myalgia* (muscle pain); *neutropenia, including febrile* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual

bleeding or bruising; unusual tiredness or weakness); pain, bone; palpitations (fast, irregular, pounding, or racing heartbeat or pulse); paresthesia (tingling, burning, or prickly sensations); sinusitis (headache); thrombocytopenia (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness) (causal relationship most likely due to APL, not arsenic therapy); tremor; weakness; weight gain; acidosis (drowsiness; severe nausea; continuing shortness of breath; troubled breathing); coma (loss of consciousness); death; hemorrhage (bleeding); hypersensitivity reaction, delayed or immediate (large hives; rash; shortness of breath or troubled breathing; swelling of eyelids, lips, or face); hypoglycemia (anxiety; behavior change similar to drunkenness; cold sweats; cool pale skin; fast heartbeat; headache; shakiness); intravascular coagulation, disseminated (DIC) (blood in stools; blood in urine; bluish color of fingernails, lips, skin, palms, or nail beds; bruising; excessive sweating; persistent bleeding or oozing from puncture sites, mouth, or nose) (causal relationship most likely due to APL, not arsenic therapy); lymphadenopathy (swollen, painful, or tender lymph glands in neck, armpit, or groin); seizures (convulsions); sepsis (chills; fever; fast heartbeat); weight loss; weakness, muscle.

DIAGNOSTIC TESTS: hyperleukocytosis; hypokalemia; anemia; hyperglycemia; hypocalcemia; hyperkalemia; hypomagnesemia; hypoxia (bluish lips and skin); neutropenia, including febrile; QT interval prolongation; thrombocytopenia; acidosis; hypoglycemia.

Ascorbic Acid (Systemic)

Commercial name(s): *Apo-C; Ascorbicap; Cebid Timecelles; Cecon; Cecore 500; Cee-500; Cemill; Cenolate; Cetane; Cevi-Bid; Flavorcee; Mega-C/A Plus; Ortho/CS; Sunkist.*

Category: Nutritional supplement (vitamin) [Ascorbic Acid; Sodium Ascorbate]; Diagnostic aid adjunct (red blood cell disease) [Ascorbic Acid Injection]; Deferoxamine adjunct (chronic iron overdose) [Ascorbic Acid; Sodium Ascorbate]; Methemoglobinemia (idiopathic) therapy adjunct [Ascorbic Acid].

Conventional indications: Vitamin C deficiency (prophylaxis and treatment); Red blood cells, labeling of, adjunct [Ascorbic acid injection]; Toxicity, iron, chronic (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness or faintness (with rapid intravenous administration).

HEAD: headache (with high doses).

STOMACH: cramps (with high doses); nausea (with high doses); vomiting (with high doses).

RECTUM: diarrhea (with oral doses greater than 1g per day).

BLADDER: urination, increase in, mild (with doses greater than 600 mg per day).

KIDNEYS: stones, kidney, oxalate (side or lower back pain) (incidence dose-related).

URINE: oxalate, increase in (prolonged doses of ascorbic acid in excess of 1g per day).

SKIN: flushing or redness of skin (with high doses).

GENERALITIES: *flushing or redness of skin* (with high doses); *scurvy* (after prolonged administration of 2 to 3 g per day).

DIAGNOSTIC TESTS: *oxalate, increase in urine; stones, kidney, oxalate.*

Asparaginase (Systemic)

Commercial name(s): *Elspar; Kidrolase.*

Category: Antineoplastic.

Conventional indications: Leukemia, acute lymphocytic (treatment); Lymphomas, non-Hodgkin's (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *CNS effects, reversible* (confusion; drowsiness; hallucinations; mental depression; nervousness; unusual tiredness) (mostly in adults).

HEAD: *hemorrhage or thrombosis, intracranial* (severe headache; inability to move arm or leg).

MOUTH: *stomatitis* (sores in mouth and on lips).

ABDOMEN: **hepatotoxicity, including fatty changes; pancreatitis** (severe stomach pain with nausea and vomiting) (usually occurs within 2 weeks of start of treatment).

KIDNEYS: *failure, renal* (swelling of feet or lower legs); *nephropathy, uric acid* (lower back or side pain; swelling of feet or lower legs).

EXTREMITIES: *thrombosis, leg vein* (pain in lower legs).

FEVER: *hyperthermia* (fever or chills).

GENERALITIES: **allergic reaction** (trouble in breathing; joint pain; puffy face; skin rash or itching); **azotemia** (usually pre-renal); **blood clotting factors, decrease in** (unusual bleeding or bruising); **hyperammonemia** (mild headache; loss of appetite; nausea or vomiting; stomach cramps; weight loss); *CNS effects, reversible* (confusion; drowsiness; hallucinations; mental depression; nervousness; unusual tiredness) (mostly in adults); *hyperglycemia* (frequent urination; unusual thirst) (resembles hyperosmolar, nonketotic hyperglycemia); *hyperuricemia; hypoalbuminemia; anaphylactic reaction* (intradermal skin test); *bleeding, fatal or not; bone marrow depression* (transient); *death; fibrinolytic activity, compensatory increase in; immunosuppression* (infection); *leukopenia.*

DIAGNOSTIC TESTS: **azotemia** (usually pre-renal); **blood clotting factors, decrease in; hyperammonemia; hyperglycemia; hyperuricemia; hypoalbuminemia; bone marrow depression** (transient); *leukopenia.*

Aspirin, Sodium Bicarbonate, and Citric Acid (Systemic)

Commercial name(s): *Alka-Seltzer Effervescent Pain Reliever and Antacid; Flavored Alka-Seltzer Effervescent Pain Reliever and Antacid.*

Category: Analgesic-antacid; Platelet aggregation inhibitor.

Conventional indications: Pain and upset stomach (treatment); Platelet aggregation (prophylaxis); Myocardial infarction (prophylaxis) or Myocardial reinfarction (prophylaxis) [Aspirin]; Thromboembolism (prophylaxis) [Aspirin].

Primary Actions or Pathogenetic Symptoms

MIND: behavior, changes in (in young children); confusion; hallucinations; nervousness or excitement, severe.

VERTIGO: dizziness or lightheadedness.

HEAD: headache.

VISION: problems in vision.

HEARING: *deafness; decreased hearing; tinnitus.*

FACE: *edema* (swelling of face).

STOMACH: **cramps; irritation, gastrointestinal** (heartburn, indigestion, mild stomach pain and/or nausea with or without vomiting); **thirst, increased; ulceration, possibly with bleeding, gastrointestinal** (bloody or black, tarry stools; stomach pain, severe; vomiting of blood or material that looks like coffee grounds); nausea and/or vomiting, continuing; pain.

ABDOMEN: **irritation, gastrointestinal** (heartburn, indigestion, mild stomach pain and/or nausea with or without vomiting); *ulceration, possibly with bleeding, gastrointestinal* (bloody or black, tarry stools; stomach pain, severe; vomiting of blood or material that looks like coffee grounds); *hepatotoxicity* (abnormal liver function tests).

RECTUM: *bleeding, gastrointestinal* (bloody or black, tarry stools; stomach pain, severe; vomiting of blood or material that looks like coffee grounds); diarrhea, severe or continuing

KIDNEYS: *renal function, decrease in* [Aspirin].

URINE: bloody urine; ketonuria; proteinuria.

RESPIRATION: *bronchospastic allergic reaction* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing); *hyperventilation*; breathing, fast or deep; shortness of breath; troubled breathing.

CHEST: *bronchospastic allergic reaction* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing).

EXTREMITIES: *edema* (swelling of fingers, ankles, feet, or lower legs); flapping movements of the hands, uncontrollable (especially in elderly patients).

SLEEP: drowsiness, severe.

FEVER: fever, unexplained (rebound effect?).

SKIN: *dermatitis, allergic* (skin rash, hives, or itching); *urticaria*.

GENERALITIES: ***bleeding; pain absence; anaphylaxis*** (bluish discoloration or flushing or redness of skin; coughing; difficulty in swallowing; dizziness or feeling faint, severe; skin rash, hives [may include giant urticaria], and/or itching; stuffy nose; swelling of eyelids, face, or lips; tightness in chest, troubled breathing, and/or wheezing, especially in asthmatic patients); *anemia* (unusual tiredness or weakness) (may occur secondary to gastrointestinal microbleeding); *blood pressure, increased; edema* (swelling of face, fingers, ankles, feet, or lower legs; unusual weight gain); *metabolic acidosis; metabolic alkalosis* (mood or mental changes; muscle pain or twitching; nervousness or restlessness; slow breathing; unpleasant taste; unusual tiredness or weakness) (more likely in patients with renal function impairment); convulsions; hyperglycemia or hypoglycemia (especially in children); hypokalemia; salicylism (continuing ringing or buzzing in ears, or hearing loss; confusion; severe or continuing diarrhea, stomach pain, and/or headache; dizziness or lightheadedness; severe drowsiness; fast or deep breathing; continuing nausea and/or

vomiting; uncontrollable flapping movements of the hands, especially in elderly patients; increased thirst; vision problems); tiredness, severe (in young children).

DIAGNOSTIC TESTS: *anemia*; *hypercalcemia associated with milk-alkali syndrome*; *metabolic acidosis*; *metabolic alkalosis*; *prothrombin time, decreased*; bloody urine; encephalographic abnormalities; hyperglycemia or hypoglycemia; hyponatremia; hypokalemia, ketonuria; proteinuria.

Secondary Actions or Rebound Effects: fever, unexplained.

Atazanavir (Systemic)

Commercial name(s): *Reyataz*.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus (HIV) infection (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **depression** (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping).

VERTIGO: *dizziness*.

HEAD: headache.

EYE: **icterus, scleral** (yellowing of eyes).

STOMACH: **nausea; pain, abdominal** (stomach pain); **vomiting**.

ABDOMEN: **pain, abdominal** (stomach pain); *hyperbilirubinemia* (yellow eyes or skin).

RECTUM: **diarrhea**.

COUGH: **cough, increased**.

CHEST: bifascicular block.

BACK: **pain**.

EXTREMITIES: *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness).

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep).

FEVER: *fever*.

SKIN: **rash**.

GENERALITIES: **jaundice** (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); **lipodystrophy** (redistribution or accumulation of body fat); *fatigue* (unusual tiredness or weakness); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness); *pain*; *allergic reaction* (chills; hives; fever; shortness of breath; tightness in chest; trouble in breathing; wheezing; skin rash; itching); *death*; *diabetes mellitus or hyperglycemia, new onset or exacerbation of* (blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; loss of consciousness; nausea; stomachache; sweating; troubled breathing; unexplained weight loss; vomiting);

hyperbilirubinemia (yellow eyes or skin); *lactic acidosis, sometimes fatal* (abdominal discomfort; decreased appetite; diarrhea; fast, shallow breathing; general feeling of discomfort; muscle pain or cramping; nausea; shortness of breath; sleepiness; unusual tiredness or weakness); bifascicular block.

DIAGNOSTIC TESTS: *hyperbilirubinemia; hyperglycemia, new onset or exacerbation of; PR interval prolongation.*

Atomoxetine (Systemic)

Commercial name(s): *Strattera.*

Category: Attention deficit hyperactivity disorder therapy agent.

Conventional indications: Attention-deficit hyperactivity disorder (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *activity, reduced; irritability; lethargy* (unusual drowsiness, dullness, tiredness, weakness or feeling of sluggishness); *crying; mood swings*; agitation (rebound effect?); behavior, abnormal.

VERTIGO: *dizziness; hypotension, orthostatic* (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position).

HEAD: *headache; sinus headache.*

EYE: *angioedema* (large, hive-like swelling on eyelids); mydriasis.

EAR: *infection* (change in hearing; earache or pain in ear; ear drainage; fever).

NOSE: *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *rhinorrhea* (runny nose).

FACE: *hot flushes* (redness of the face); *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *dry; angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

EXTERNAL THROAT: *hot flushes* (redness of the neck)

STOMACH: *appetite, decreased; dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); **nausea; pain, abdominal, upper** (stomach pain); **vomiting.**

ABDOMEN: **pain, abdominal, upper** (stomach pain); *flatulence* (bloated, full feeling; excess air or gas in stomach or intestines; passing gas); *liver failure, acute; liver injury, severe* (pruritus; dark urine; persistent anorexia; yellow eyes or skin; influenza [flu]-like symptoms; right upper quadrant tenderness).

RECTUM: **constipation** (difficulty having a bowel movement (stool)); *diarrhea.*

BLADDER: **hesitation or retention, urinary** (decrease in urine volume; decrease in frequency of urination; difficulty in passing urine [dribbling]; painful urination).

PROSTATE GLAND: *prostatitis* (back pain; chills; fever; frequent urination; groin pain; muscle aches; pain or burning with urination; swollen, tender prostate).

GENITALIA MALE: **erectile disturbance** (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection);

libido, decreased (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection); ejaculation failure or disorder (change or problem with discharge of semen); impotence (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection); orgasm, abnormal; angioedema (large, hive-like swelling on sex organs).

GENITALIA FEMALE: dysmenorrhea (pain; cramps; heavy bleeding); **libido, decreased** (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse); **menstruation irregular, delayed menses, or menstrual disorder** (change in pattern of monthly periods; change in amount of bleeding during periods; unusual stopping of menstrual bleeding; bleeding between periods); orgasm, abnormal; angioedema (large, hive-like swelling on sex organs).

COUGH: cough.

CHEST: palpitations (irregular heartbeat); tachycardia (rebound effect?).

EXTREMITIES: hot flushes (feeling of warmth; redness of the arms); myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); angioedema (large, hive-like swelling on hands, legs, feet).

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep) (rebound effect?); **somnolence** (sleepiness or unusual drowsiness); sleep disorder.

DREAMS: abnormal dreams.

CHILL: rigors (feeling unusually cold; shivering).

FEVER: pyrexia (fever).

PERSPIRATION: sweating, increased.

SKIN: dermatitis (blistering, crusting, irritation, itching, or reddening of skin; cracked, dry, scaly skin; swelling); skin rash; urticaria.

GENERALITIES: activity, reduced; fatigue (unusual tiredness or weakness); **sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); hot flushes (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest; sudden sweating); hypotension, orthostatic (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position); influenza (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains); myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); palpitations (irregular heartbeat); paresthesia (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); weight, decreased; angioedema (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs); death; tachycardia (rebound effect?).

Secondary Actions or Rebound Effects: insomnia; hyperactivity; tachycardia.

Atorvastatin (Systemic)

Commercial name(s): Lipitor.

Category: Antihyperlipidemic; HMG-CoA reductase inhibitor.

Conventional indications: Coronary heart disease (prophylaxis); Hyperlipidemia (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *amnesia; depression; emotional lability* (crying; depersonalization; dysphoria; euphoria; mental depression; paranoia; quick to react or overreact emotionally; rapidly changing moods).

VERTIGO: *dizziness; hypotension, postural* (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position); *syncope* (fainting).

HEAD: *headache; alopecia* (hair loss, thinning of hair); *migraine* (headache, severe and throbbing); *seborrhea* (dandruff; oily skin).

EYE: *dry; edema, angioneurotic* (large, hive-like swelling on eyelids); *glaucoma* (blindness; blurred vision; decreased vision; eye pain; headache; nausea or vomiting; tearing); *hemorrhage, eye* (bleeding).

VISION: *glaucoma* (blindness; blurred vision; decreased vision; eye pain; headache; nausea or vomiting; tearing); *photosensitivity* (blurred vision; change in color vision; difficulty seeing at night; increased sensitivity of eyes to sunlight); *refraction disorder* (blurred vision).

HEARING: *deafness; tinnitus* (continuing ringing or buzzing or other unexplained noise in ears; hearing loss).

NOSE: *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *epistaxis* (bloody nose); *parosmia* (transient, mild, pleasant aromatic odor); *rhinitis* (stuffy nose; runny nose sneezing).

FACE: *acne; cheilitis* (chapped, red, or swollen lips; scaling, redness, burning, pain, or other signs of inflammation of lips); *edema, angioneurotic, generalized, peripheral* (large, hive-like swelling on face, lips); *paralysis* (unable to move or feel face).

MOUTH: *dry; edema, angioneurotic* (large, hive-like swelling on tongue); *glossitis* (redness, swelling, or soreness of tongue); *hemorrhage, gum* (bleeding); *stomatitis* (swelling or inflammation of the mouth); *stomatitis, ulcerative* (sores on inside of cheeks or gums, fever, feeling ill); *taste loss; taste perversion; ulceration*.

THROAT: *dysphagia* (difficulty swallowing); *edema, angioneurotic* (large, hive-like swelling on throat); *esophagitis* (difficulty in swallowing; pain or burning in throat; chest pain; heartburn; vomiting; sores, ulcers, or white spots on lips or tongue or inside the mouth).

EXTERNAL THROAT: *rigidity, neck* (severe muscle stiffness); *torticollis* (uncontrolled twisting movements of neck).

STOMACH: *dyspepsia* (heartburn; indigestion; stomach discomfort); *appetite increased; anorexia; eructation* (belching; bloated full feeling; excess air or gas in stomach); *gastritis* (burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion); *gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *nausea; vomiting*.

ABDOMEN: *flatulence* (belching; excessive gas); *liver function abnormalities* (persistent elevation of liver function tests); *pain, abdominal; colitis* (stomach cramps; tenderness;

pain; watery or bloody diarrhea; fever); *enteritis* (diarrhea; stomach pain or cramps); *gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *pain, biliary* (upper abdominal pain); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: *constipation*; *diarrhea*; *hemorrhage, rectal* (bleeding); *melena* (bloody, black, or tarry stools); *tenesmus* (frequent urge to defecate; straining while passing stool)

STOOL: *melena* (bloody, black, or tarry stools).

BLADDER: *cystitis* (bloody or cloudy urine; difficult; burning, or painful urination; frequent urge to urinate); *dysuria* (difficult or painful urination; burning while urinating); *incontinence, urinary* (loss of bladder control); *nocturia* (waking to urinate at night; increased urge to urinate during the night); *retention, urinary*; *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *urgency, urinary*.

KIDNEYS: *calculus* (blood in urine; nausea and vomiting; pain in groin or genitals; sharp back pain just below ribs); *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *nephritis* (bloody or cloudy urine, difficulty in breathing, drowsiness, headache, unusual tiredness or weakness, nausea or vomiting, blood in urine, unusual weight gain, swelling of face, feet, or lower legs); *renal failure, acute*.

URINE: *albuminuria* (cloudy urine); *hematuria* (blood in urine).

GENITALIA MALE: *edema, angioneurotic* (large, hive-like swelling on sex organs); *epididymitis* (chills; fever, pain in abdomen, groin, or scrotum; pain or burning with urination; swelling of scrotum); *impotence* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection).

GENITALIA FEMALE: *edema, angioneurotic* (large, hive-like swelling on sex organs); *hemorrhage, vaginal and/or uterine (bleeding)*; *libido decreased* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse); *metorrhagia* (normal menstrual bleeding occurring earlier, possibly lasting longer than expected).

RESPIRATION: *asthma*; *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: *angina pectoris* (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea) (rebound effect?); *arrhythmia* (dizziness; fainting; fast, slow, or irregular heartbeat); *asthma*; *breast enlargement*; *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *fibrocystic breast* (lumps in breasts; painful or tender cysts in the breasts); *pain*; *palpitation* (fast, irregular, pounding, or racing heartbeat or pulse).

BACK: *pain*.

EXTREMITIES: *cramps, leg*; *myalgia, uncomplicated* (muscle pain); *myopathy* (fever; muscle cramps, pain, stiffness, or weakness; unusual tiredness); *myositis* (inflammation of muscle); *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *arthritis*; *bursitis* (pain and inflammation at the joints); *edema, angioneurotic* (large, hive-like swelling on hands, legs, feet); *gout* (ankle, knee or great toe joint pain; joint stiffness or swelling; lower back or side pain); *hypertonia*

(excessive muscle tone; muscle tension or tightness; muscle stiffness); *incoordination*; *myasthenia* (loss of strength or energy; muscle pain or weakness); *myositis* (muscle pain; unusual tiredness or weakness); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness); *tendinous contracture* (difficulty moving body parts); *tenosynovitis* (joint or muscle pain or stiffness).

SLEEP: *insomnia*; *somnolence* (sleepiness or unusual drowsiness).

DREAMS: *abnormal dreams*.

FEVER: *fever*.

PERSPIRATION: *sweating*.

SKIN: *skin rash*; *acne*; *alopecia* (hair loss, thinning of hair); *dermatitis, contact* (blistering, burning, crusting, dryness, flaking of skin itching; scaling; severe redness, soreness swelling of skin); *dry*; *ecchymosis* (bruising; large, flat, blue or purplish patches in the skin); *eczema* (skin rash encrusted, scaly and oozing); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *petechia* (small red or purple spots on skin); *pruritis* (itching skin); *rashes, bullous* (skin blisters); *seborrhea* (dandruff; oily skin); *toxic epidermal necrolysis* (redness, tenderness, itching, burning, or peeling of skin; red or irritated eyes; sore throat, fever, and chills); *ulcer, skin* (sores on the skin); *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *hypolipidemic effect*; **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *allergic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *asthenia* (lack or loss of strength); *flu syndrome* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *injury, accidental*; *liver function abnormalities* (persistent elevation of liver function tests); *myalgia, uncomplicated* (muscle pain); *myopathy* (fever; muscle cramps, pain, stiffness, or weakness; unusual tiredness); *myositis* (inflammation of muscle); *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *albuminuria* (cloudy urine); *alopecia* (hair loss, thinning of hair); *anaphylaxis* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); *arrhythmia* (dizziness; fainting; fast, slow, or irregular heartbeat); *arthritis*; *ecchymosis* (bruising; large, flat, blue or purplish patches in the skin); *edema, angioneurotic* (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or

white spots in mouth or on lips; unusual tiredness or weakness); *hyperglycemia* (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); *hyperkinesia* (increase in body movements); *hypertension*; *hypertonia* (excessive muscle tone; muscle tension or tightness; muscle stiffness); *paresthesia* (increased sensitivity to pain; increased sensitivity to touch; tingling in the hands and feet); *hypoglycemia* (anxiety; blurred vision; chills; cold sweats; coma; confusion; cool pale skin; depression; dizziness; fast heartbeat; headache; increased hunger; nausea; nervousness; nightmares; seizures; shakiness; slurred speech; unusual tiredness or weakness); *hypotension*, *postural* (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position); *lymphadenopathy* (swollen, painful, or tender lymph glands in neck, armpit, or groin); *malaise* (general feeling of discomfort or illness; unusual tiredness or weakness); *myasthenia* (loss of strength or energy; muscle pain or weakness); *myositis* (muscle pain; unusual tiredness or weakness); *neuropathy*, *peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness); *palpitation* (fast, irregular, pounding, or racing heartbeat or pulse); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen possibly radiating to the back; vomiting; yellow eyes or skin); *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *phlebitis* (bluish color changes in skin color; pain; tenderness; swelling of foot or leg); *seborrhea* (dandruff; oily skin); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center sore; throat sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *tendinous contracture* (difficulty moving body parts); *tenosynovitis* (joint or muscle pain or stiffness); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *toxic epidermal necrolysis* (redness, tenderness, itching, burning, or peeling of skin red or irritated eyes; sore throat, fever, and chills); *vasodilation* (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or light-headedness; sweating); *weight gain*.

DIAGNOSTIC TESTS: *liver function abnormalities* (persistent elevation of liver function tests); *albuminuria*; *anemia*; *calculus*; *creatine phosphokinase (CPK) value increases* (greater than 10 times the upper limit of normal); *hematuria*; *hyperglycemia*; *hypoglycemia*; *thrombocytopenia*.

Atovaquone (Systemic)

Commercial name(s): *Mepron*.

Category: Antiprotozoal.

Conventional indications: Pneumonia, *Pneumocystis carinii* (PCP) (treatment); Pneumonia, *Pneumocystis carinii* (PCP) (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.
STOMACH: nausea; vomiting.
RECTUM: diarrhea.
COUGH: cough.
SLEEP: insomnia (trouble in sleeping).
FEVER: fever.
SKIN: skin rash.

Atovaquone and Proguanil (Systemic)

Commercial name(s): Malarone.

Category: Anti-protozoal.

Conventional indications: Malaria (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety* (fear, nervousness); *depression* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); *psychotic events (such as hallucinations)* (severe mental changes; [seeing, hearing, or feeling things that are not there]).

VERTIGO: *dizziness*.

HEAD: headache; hair loss, reversible [Proguanil].

EYE: *angioedema* (large, hive-like swelling on eyelids).

VISION: *difficulties, visual* (blurred or loss of vision; disturbed color perception; night blindness; double vision; tunnel vision; halos around lights; overbright appearance of lights).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *ulcers, oral* (sores in mouth); *angioedema* (large, hive-like swelling tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

STOMACH: *nausea; vomiting; anorexia* (loss of appetite; weight loss); *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); *gastritis* (burning feeling in chest or stomach; indigestion; stomach upset; tenderness in stomach area); discomfort, epigastric (pain in chest, upper stomach or throat; heartburn) [Proguanil].

ABDOMEN: *pain, abdominal*.

RECTUM: diarrhea.

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: *infection, upper respiratory* (cough; fever; sneezing; sore throat).

COUGH: cough.

CHEST: *infection, upper respiratory* (cough; fever; sneezing; sore throat).

BACK: *pain*.

EXTREMITIES: *myalgia* (muscle pain); *angioedema* (large, hive-like swelling on hands, legs, feet); scaling of the skin on palms or soles [Proguanil].

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep).

DREAMS: dreams.

FEVER: *fever*.

SKIN: **pruritus** (itching skin); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *photosensitivity* (increased sensitivity of skin to sunlight; itching; redness or other discoloration of skin; severe sunburn; skin rash); *rash*; *urticaria* (hives or welts; itching; redness of skin; skin rash); hair loss, reversible [Proguanil]; scaling of the skin on palms or soles [Proguanil].

GENERALITIES: **asthenia** (lack or loss of strength); **infection, upper respiratory** (cough; fever; sneezing; sore throat); **myalgia** (muscle pain); *flu syndrome* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *anaphylaxis* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *angioedema* (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *seizures* (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); hair loss, reversible [Proguanil].

Atropine (Ophthalmic)

Commercial name(s): *Atropair; Atropine Care; Atropine Sulfate S.O.P.; Atropisol; Atrosulf; I-Tropine; Isopto Atropine; Minims Atropine; Ocu-Tropine.*

Category: Cycloplegic; Mydriatic.

Conventional indications: Refraction, cycloplegic; Uveitis (treatment); Synechiae, posterior (prophylaxis and treatment); Mydriasis, preoperative and postoperative; Glaucoma, malignant (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *behavior, unusual; coma* (in the very young); *clumsiness; confusion; hallucinations.*

VERTIGO: *dizziness.*

EYE: *cycloplegia* (paralysis of the ciliary muscle, resulting in a loss of visual accommodation); *mydriasis* (extensive pupils); *conjunctivitis, follicular; dermatitis, contact or eczematoid; edema; exudate; irritation not present before therapy; sensitivity to light, increased; swelling of the eyelids; vascular congestion.*

VISION: *cycloplegia* (paralysis of the ciliary muscle, resulting in a loss of visual accommodation); *blurred vision*.

FACE: *flushing or redness*.

MOUTH: *speech, slurred; xerostomia* (thirst or dryness of mouth).

STOMACH: *swollen stomach* (in infants).

RESPIRATION: *respiratory depression, progressive*.

CHEST: *tachycardia* (fast or irregular heartbeat).

EXTREMITIES: *clumsiness; unsteadiness*.

SLEEP: *drowsiness, unusual*.

FEVER: *fever*.

SKIN: *dryness; skin rash*.

GENERALITIES: *coma* (in the very young); *death* (in the very young); *hypotension*; *tachycardia* (fast or irregular heartbeat); *tiredness; weakness*.

Atropine, Hyoscyamine, Methenamine, Methylene Blue, Phenyl Salicylate, and Benzoic Acid (Systemic)

Commercial name(s): *Atrosept; Dolsed; Hexalol; Prosed/DS; Trac Tabs 2X; UAA; Uridon Modified; Urimed; Urinary Antiseptic No. 2; Urised; Uriseptic; Uritab; Uritin; Uro-Ves*.

Category: Anticholinergic-antibacterial-analgesic (urinary tract).

Conventional indications: Irritative voiding, symptoms of (treatment); Diagnostic procedure-induced symptoms, urinary (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache, severe or continuing*.

EYE: *intraocular pressure, increased* (eye pain).

VISION: *accommodation, eye, difficulty in* (blurred vision).

HEARING: *ringing or buzzing in ears*.

NOSE: *dryness*.

FACE: *flushing or redness*.

MOUTH: *dryness*.

THROAT: *dryness*.

STOMACH: *nausea; pain; upset, stomach; vomiting*.

RECTUM: *diarrhea*.

STOOL: *blue or blue-green stools* (due to excretion of methylene blue); *bloody stools*.

BLADDER: *pain absence; urination, difficult* (more frequent with large doses over a prolonged period of time).

URINE: *blue or blue-green urine* (due to excretion of methylene blue); *hematuria; crystalluria* (blood in urine; lower back pain; pain or burning while urinating) (due to Methenamine).

RESPIRATION: *shortness of breath; troubled breathing*.

CHEST: *heartbeat, fast*.

SLEEP: *drowsiness, severe*.

PERSPIRATION: sweating.

SKIN: *allergic reaction* (skin rash or hives).

GENERALITIES: anticholinergic effects (severe drowsiness; dizziness; fast heartbeat; flushing or redness of face; shortness of breath or troubled breathing); salicylate effects (bloody stools; diarrhea; severe or continuing headache; dizziness; ringing or buzzing in ears; sweating; unusual tiredness or weakness).

DIAGNOSTIC TESTS: **blue or blue-green urine** (due to excretion of methylene blue); hematuria; crystalluria (blood in urine; lower back pain; pain or burning while urinating) (due to Methenamine).

Attapulgit (Oral-Local)

Commercial name(s): *Diar-Aid; Diarrest; Diasorb; Diatrol; Donnagel; Fowler's; K-Pek; Kaopectate; Kaopek; Parepectolin; Rheaban.*

Category: Antidiarrheal (adsorbent).

Conventional indications: Diarrhea (treatment).

Primary Actions or Pathogenetic Symptoms

RECTUM: *constipation* (usually mild and transient, but may rarely lead to fecal impaction).

Azacitidine (Systemic)

Commercial name(s): *Vidaza.*

Category: Antineoplastic.

Conventional indications: Myelodysplastic syndrome (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety** (fear; nervousness); **depression** (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); **lethargy** (unusual drowsiness; dullness, tiredness, weakness or feeling of sluggishness); *coma, hepatic* (change in consciousness; loss of consciousness).

VERTIGO: **dizziness; syncope** (fainting).

HEAD: **headache.**

NOSE: **congestion** (stuffy nose); **drip, postnasal; epistaxis** (bloody nose); **nasopharyngitis** (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache); **rhinorrhea** (runny nose); **sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

MOUTH: **bleeding, gingival** (bleeding gums); **hemorrhage, mouth; petechia, oral mucosal** (small red or purple spots in mouth); **stomatitis** (swelling or inflammation of the mouth); **ulceration, tongue.**

THROAT: **dysphagia** (difficulty swallowing); **nasopharyngitis** (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache); **pharyngitis**

(body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: **anorexia** (loss of appetite; weight loss); **appetite decreased**; **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); **nausea**; **pain, abdominal** (stomach pain); **vomiting**.

ABDOMEN: **distention, abdominal** (swelling of abdominal or stomach area; full or bloated feeling or pressure in the stomach); **pain, abdominal** (stomach pain); **tenderness, abdominal** (soreness or discomfort to touch or pressure on stomach).

RECTUM: **constipation** (difficulty having a bowel movement [stool]); **diarrhea** (rebound effect?); **hemorrhoids** (bleeding after defecation; uncomfortable swelling around anus).

STOOL: **loose stools**.

BLADDER: **dysuria** (difficult or painful urination; burning while urinating); **infection, urinary tract** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: **infection, urinary tract** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *failure, renal* (lower back/side pain; decreased frequency/amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure); *tubular acidosis, renal* (drowsiness; fatigue; headache; nausea; troubled breathing; vomiting).

RESPIRATION: **crackles, lung**; **dyspnea** (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); **dyspnea exertional** (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); **infection, upper respiratory tract** (ear congestion; nasal congestion; chills; cough; fever; sneezing; or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **pneumonia** (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); **rales** (small clicking, bubbling, or rattling sounds in the lung when listening with a stethoscope); **rhonchi** (trouble breathing; noisy breathing); **sounds, breath, decreased**; **wheezing**.

COUGH: **cough**.

CHEST: **atelectasis** (coughing; difficult breathing; fever; rapid heartbeat); **effusion, pleural** (chest pain; shortness of breath); **infection, upper respiratory tract** (ear congestion; nasal congestion; chills; cough; fever; sneezing; or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **murmur, cardiac** (heart murmur); **pain; pneumonia** (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); **tachycardia** (fast, pounding, or irregular heartbeat or pulse).

BACK: **pain**.

EXTREMITIES: **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **cramps, muscle**; **edema, peripheral** (swelling of hands, ankles, feet, or lower legs); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **pain in limb**.

SLEEP: **insomnia** (sleeplessness; trouble sleeping; unable to sleep).

CHILL: **rigors** (feeling unusually cold; shivering).

FEVER: **pyrexia** (fever).

PERSPIRATION: sweating increased; sweats, night.

SKIN: cellulitis (itching, pain, redness, swelling, tenderness, warmth on skin); **dry skin**; **ecchymosis** (bruising; large, flat, blue or purplish patches in the skin); **edema, pitting** (swelling with pits or depressions visible on skin); **erythema** (flushing; redness of skin; unusually warm skin); **hematoma** (collection of blood under skin; deep, dark purple bruise; itching; pain; redness or swelling); **injection site bruising, erythema** (abnormal redness of skin at injection site), **granuloma** (inflamed tissue from infection at the site of injection), **pruritus** (itching at injection site); **lesions** (bumps on skin; rash on skin); **nodules** (small lumps under the skin); **pallor** (paleness of skin); **petechia** (small red or purple spots on skin); **pruritus** (itching skin); **rash; urticaria** (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: anaphylactic reaction (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); **anemia** (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **contusion** (injury to tissue usually without laceration; bruise); **cramps, muscle; ecchymosis** (bruising; large, flat, blue or purplish patches in the skin); **edema, pitting** (swelling with pits or depressions visible on skin); **fatigue** (unusual tiredness or weakness); **hematoma** (collection of blood under skin; deep, dark purple bruise; itching; pain; redness or swelling); **hemorrhage, post procedural; herpes simplex** (burning or stinging of skin; painful cold sores or blisters on lips, nose, eyes, or genitals); **hypoesthesia** (burning, crawling, itching, numbness, prickling, “pins and needles”; or tingling feelings); **hypotension** (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); **infection, upper respiratory tract** (ear congestion; nasal congestion; chills; cough; fever; sneezing; or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **injection site bruising, erythema** (abnormal redness of skin at injection site), **granuloma** (inflamed tissue from infection at the site of injection), **pain, pruritus** (itching at injection site), **reaction** (bleeding, blistering, burning, coldness, discoloration of skin, feeling of pressure, hives, infection, inflammation, itching, lumps, numbness, pain, rash, redness, scarring, soreness, stinging, swelling, tenderness, tingling, ulceration, or warmth at injection site), **swelling; leukopenia** (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); **lymphadenopathy** (swollen, painful, or tender lymph glands in neck, armpit, or groin); **malaise** (general feeling of discomfort or illness; unusual tiredness or weakness); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **neutropenia, febrile or not** (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); **pain; sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); **tachycardia** (fast, pounding, or irregular heartbeat or pulse);

thrombocytopenia (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); **transfusion reaction** (dizziness; fever or chills; facial swelling; headache; nausea or vomiting; shortness of breath; skin rash; weakness); **weakness**; **weight decreased**; *coma, hepatic* (change in consciousness; loss of consciousness); *hypokalemia* (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness).

DIAGNOSTIC TESTS: **anemia**; **leukopenia**; **neutropenia**, **febrile or not**; **thrombocytopenia**; *hypokalemia*; *serum creatinine, elevated*.

Azathioprine (Systemic)

Commercial name(s): *Imuran*.

Category: Immunosuppressant; Antirheumatic (disease-modifying); Bowel disease (inflammatory) suppressant; Lupus erythematosus suppressant.

Conventional indications: Transplant rejection, organ (prophylaxis); Arthritis, rheumatoid (treatment); Bowel disease, inflammatory (treatment); Cirrhosis, biliary (treatment); Dermatomyositis, systemic (treatment); Glomerulonephritis (treatment); Hepatitis, chronic active (treatment); Lupus erythematosus, systemic (treatment); Myasthenia gravis (treatment); Myopathy, inflammatory (treatment); Nephrotic syndrome (treatment); Pemphigoid (treatment); Pemphigus (treatment).

Primary Actions or Pathogenetic Symptoms

FACE: *sores on lips*.

MOUTH: *sores in mouth*.

STOMACH: **appetite, loss of**; **nausea**; **vomiting**; *hypersensitivity reaction, gastrointestinal* (severe nausea and vomiting with diarrhea; sudden fever; joint pain; sudden unusual feeling of discomfort or illness).

ABDOMEN: *biliary stasis*; *hypersensitivity reaction, gastrointestinal* (severe nausea and vomiting with diarrhea; sudden fever; joint pain; sudden unusual feeling of discomfort or illness); *pancreatitis*, *hypersensitivity* (severe stomach pain with nausea and vomiting); *veno-occlusive disease, hepatic* (stomach pain; swelling of feet or lower legs) (potentially fatal); hepatotoxicity; liver function test abnormalities.

RECTUM: diarrhea.

RESPIRATION: *pneumonitis* (cough; shortness of breath).

CHEST: *pneumonitis* (cough; shortness of breath).

SKIN: skin rash.

GENERALITIES: **immunosuppression**; **anemia**, **megaloblastic** (unusual tiredness or weakness); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **leukopenia** (dose-related); *hepatitis*; *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *bone marrow depression, delayed* (black, tarry stools; blood in urine; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint

red spots on skin; unusual bleeding or bruising) (rebound effect?); *death*; *hypersensitivity* (fast heartbeat; sudden fever; muscle or joint pain; redness or blisters on skin); *hypotension*; *pancreatitis*, *hypersensitivity* (severe stomach pain with nausea and vomiting); bleeding (pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: **anemia**; **leukopenia** (dose-related); *thrombocytopenia*; *bone marrow depression*, *delayed* (black, tarry stools; blood in urine; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising) (rebound effect?); *hepatic enzymes*, *elevated*.

Azelaic Acid (Topical)

Commercial name(s): *Azelex*; *Finevin*.

Category: Antiacne agent (topical); Hypopigmentation agent (topical).

Conventional indications: Acne vulgaris (treatment); Melasma (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *hypopigmentation* (white spots or lightening of treated areas of dark skin); **desquamation** (peeling of skin); **dryness**; **erythema** (redness of skin); **inflammatory reaction, mild** (burning, stinging, or tingling of skin, mild); **pruritus, mild** (itching of skin).

Azelastine (Nasal)

Commercial name(s): *Astelin*.

Category: Antihistaminic (H₁-receptor), nasal.

Conventional indications: Rhinitis, seasonal allergic (treatment); Rhinitis, vasomotor (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *pain*; *problems, eye* (eye pain or redness or blurred vision or other change in vision).

VISION: *problems, eye* (eye pain or redness or blurred vision or other change in vision).

NOSE: *epistaxis* (bloody mucus or unexplained nosebleeds).

MOUTH: **taste, bitter**; *dryness*; *stomatitis* (sores in mouth or on lips); salivation (in mice).

THROAT: *pharyngitis* (sore throat).

STOMACH: *nausea*.

URINE: *hematuria* (blood in urine).

RESPIRATION: *bronchospasm* (shortness of breath, tightness in chest, troubled breathing, or wheezing).

COUGH: *cough*.

CHEST: *bronchospasm* (shortness of breath, tightness in chest, troubled breathing, or wheezing); *tachycardia* (rapid heartbeat).

EXTREMITIES: *myalgia* (muscle aches or pain); muscle tone decreased (mice).

SLEEP: *somnolence* (drowsiness or sleepiness).

SKIN: *allergic reaction* (skin rash, hives, or itching).

GENERALITIES: *fatigue* (unusual tiredness or weakness); *myalgia* (muscle aches or pain); *weight gain*; *tachycardia* (rapid heartbeat); convulsions (in mice); death (in mice and dogs); muscle tone decreased (in mice); tremor (in mice).

DIAGNOSTIC TESTS: *hematuria*.

Secondary Actions or Rebound Effects: *burning inside the nose*; *sneezing*, *paroxysmal* (sudden outbursts of sneezing).

Azelastine (Ophthalmic)

Commercial name(s): *Optivar*.

Category: Antihistaminic (H₁-receptor), ophthalmic; Antiallergic, ophthalmic; Mast cell stabilizer, ophthalmic.

Conventional indications: Conjunctivitis, allergic (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headaches*.

EYE: *conjunctivitis* (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing) (rebound effect?); *pain*.

VISION: *blurring vision*, *temporary*

NOSE: *rhinitis* (stuffy nose; runny nose; sneezing) (rebound effects?).

MOUTH: *taste, bitter*.

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

RESPIRATION: *asthma* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: *asthma* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing).

SKIN: *pruritus* (itching skin).

GENERALITIES: *fatigue* (unusual tiredness or weakness); *influenza-like symptoms* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting).

Secondary Actions or Rebound Effects: *burning or stinging, transient*; *rhinitis* (stuffy nose; runny nose; sneezing).

Azithromycin (Systemic)

Commercial name(s): *Zithromax*.

Category: Antibacterial (systemic).

Conventional indications: Bronchitis, bacterial exacerbations (treatment); Otitis media, acute (treatment); Cervicitis, gonococcal (treatment); Cervicitis, nongonococcal (treatment); Urethritis, gonococcal (treatment); Urethritis, nongonococcal (treatment); Chancroid (treatment); *Mycobacterium avium* complex (MAC) disease, disseminated (prophylaxis); Pelvic inflammatory disease (treatment); Pharyngitis (treatment); Tonsillitis (treatment); Pneumonia, community-acquired (treatment); Skin and soft tissue infections (treatment); Sinusitis, acute, bacterial; Trachoma (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

STOMACH: *nausea; vomiting*.

ABDOMEN: *pain, abdominal; colitis, pseudomembranous* (abdominal or stomach cramps or pain, severe; abdominal tenderness; diarrhea, watery and severe, which may also be bloody; fever).

RECTUM: *diarrhea, mild*.

KIDNEYS: *nephritis, interstitial, acute* (fever; joint pain; skin rash).

SKIN: psoriasis, psoriasiform eruption [1].

GENERALITIES: **thrombophlebitis** (pain, redness, and swelling at site of injection); *allergic reactions* (difficulty in breathing; swelling of face, mouth, neck, hands, and feet; skin rash); *anaphylaxis; angioedema*.

Complementary Bibliography: [1] Kim GK, Del Rosso JQ. Drug-provoked psoriasis: is it drug induced or drug aggravated? Understanding pathophysiology and clinical relevance. *J Clin Aesthet Dermatol* 2010; **3**(1): 32-38.

Aztreonam (Systemic)

Commercial name(s): *Azactam*.

Category: Antibacterial (systemic) (aerobic, gram-negative organisms).

Conventional indications: Bronchitis (treatment); Pneumonia, gram-negative, bacterial (treatment); Skin and soft tissue infections (treatment); Cystitis (treatment); Urinary tract infections, bacterial (treatment); Gynecologic infections (treatment); Infections, surgically treated (treatment adjunct); Intra-abdominal infections (treatment); Septicemia, bacterial (treatment); Bone and joint infections (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion*.

VERTIGO: *vertigo* (dizziness).

HEAD: *headache*.

VISION: *diplopia* (seeing double).

HEARING: *tinnitus* (ringing, buzzing, or noise in ear).

NOSE: *congestion; sneezing*.

MOUTH: *halitosis* (bad breath); *taste, sense of, altered*; *ulcers, mouth*; *numbness of tongue*.

STOMACH: *upset, gastrointestinal* (abdominal or stomach cramps; nausea; vomiting).

ABDOMEN: *upset, gastrointestinal* (abdominal or stomach cramps; nausea; vomiting); *colitis, pseudomembranous* (mild to life-threatening).

RECTUM: *diarrhea*.

GENITALIA FEMALE: *candidiasis, vaginal or vaginitis* (burning or itching of vagina; discharge from vagina).

RESPIRATION: *dyspnea or wheezing* (difficulty in breathing).

CHEST: *tenderness, breast; pain, chest*.

EXTREMITIES: *aches, muscular*.

SLEEP: *insomnia* (trouble in sleeping).

FEVER: *fever*.

PERSPIRATION: *diaphoresis* (increased sweating).

SKIN: *flushing*; *paresthesia* (burning or prickling feeling of skin); *petechiae or purpura* (small, nonraised, round, purplish or red spots on skin); *urticaria* (hives).

GENERALITIES: *aches, muscular*; *flushing*; *hypersensitivity* (anaphylaxis; skin rash, redness, or itching); *paresthesia* (burning or prickling feeling of skin); *thrombophlebitis* (discomfort, inflammation, or swelling at the injection site); *anemia* (unusual tiredness or weakness); *electrocardiogram (ECG) changes*; *hepatitis* (dark urine; flu-like symptoms; general feeling of discomfort or illness; light gray-colored stools; loss of appetite; yellow skin or eyes); *hypotension* (dizziness or weakness); *leukocytosis* (sore throat; headache; general feeling of illness; chills; eye pain; cough; unusual tiredness); *neutropenia* (chills; fever; sore throat); *pancytopenia* (nosebleeds or other unusual bleeding or bruising); *seizures*; *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *thrombocytosis* (rebound effect?).

DIAGNOSTIC TESTS: *anemia*; *electrocardiogram (ECG) changes*; *leukocytosis*; *neutropenia*; *pancytopenia*; *thrombocytopenia*.

Bacillus Calmette-Guérin (BCG) Live (Mucosal-Local)

Commercial name(s): *ImmuCyst; PACIS; TICE BCG; TheraCys.*

Category: Antineoplastic.

Conventional indications: Carcinoma, bladder (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

ABDOMEN: *impairment, hepatic function; infection, BCG, disseminated, with liver involvement* (fever; cough).

BLADDER: **infection, bladder** (secondary to bladder irritation); **irritation, bladder** (blood in urine; frequent urge to urinate; increased frequency of urination; painful urination, severe or continuing); *contracture, bladder.*

PROSTATE GLAND: **prostatitis, granulomatous** (appears as nodularity, enlargement, induration, and distortion of the prostate, which is clinically indistinguishable from prostatic carcinoma).

CHEST: *infection, BCG, disseminated, with lung involvement* (fever; cough).

CHILL: *chills.*

FEVER: *fever.*

SKIN: *allergic reaction; erythema nodosum* (skin rash).

GENERALITIES: **flu-like syndrome** (fever and chills; joint pain; nausea and vomiting; in a few patients, has progressed to a severe systemic reaction with high fever, malaise, and anorexia); *burning, slight, during first void after treatment; death; hypotension; infection, BCG, disseminated, with lung or liver involvement* (fever; cough); *inflammation, granulomatous; leukopenia.*

DIAGNOSTIC TESTS: *leukopenia.*

Bacillus Calmette-Guérin (BCG) Live (Systemic)

Commercial name(s): *TICE BCG.*

Category: Immunizing agent (active).

Conventional indications: Tuberculosis (prophylaxis).

Primary Actions or Pathogenetic Symptoms

EXTREMITIES: *osteomyelitis* (increase in bone pain).

CHILL: *chills.*

FEVER: *fever.*

SKIN: **dermatologic reactions** (peeling or scaling of the skin); *allergic reaction; erythema nodosum* (skin rash); *lesions* (red papules).

GENERALITIES: **abscesses** (accumulation of pus); **granulomas** (aggregation of inflammatory cells); **lymphadenitis** (inflammation of 1 or more lymph nodes); **ulceration at site of injection** (sores at place of injection); *infection, BCG, disseminated* (fever; cough); *osteomyelitis* (increase in bone pain).

Baclofen (Intrathecal-Systemic)

Commercial name(s): *Lioresal Intrathecal*.

Category: Antispastic.

Conventional indications: Spasticity, severe (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: hallucinations (seeing, hearing, or feeling things that are not there); confusion, mental.

VERTIGO: **dizziness**; syncope (fainting); lightheadedness.

HEAD: **headache** (may be due to pump or catheter dislodgement or kinking).

VISION: blurred vision; double vision.

MOUTH: dry mouth; speech, slurred or other speech problems; salivation, excessive (increased watering of the mouth).

STOMACH: **nausea**; **vomiting**.

RECTUM: **constipation**; diarrhea.

BLADDER: **urination, difficult**; urge to urinate, frequent.

GENITALIA MALE: dysfunction, sexual.

GENITALIA FEMALE: dysfunction, sexual.

RESPIRATION: depression, respiratory (shortness of breath or troubled breathing).

EXTREMITIES: **hypotonia** (muscle weakness); **paresthesia** (numbness or tingling in hands or feet); ataxia (clumsiness, unsteadiness, trembling, or other problems with muscle control); edema (swelling of ankles, feet, or lower legs); rigidity, muscle (abrupt discontinuation; in rare cases has advanced to rhabdomyolysis, multiple organ-system failure and death).

SLEEP: **somnolence** (sleepiness); insomnia (difficulty sleeping).

SKIN: pruritus (itching of the skin).

GENERALITIES: **hypotonia** (muscle weakness); **paresthesia** (numbness or tingling in hands or feet); **seizures**; asthenia (muscle weakness); ataxia (clumsiness, unsteadiness, trembling, or other problems with muscle control); central nervous system (CNS) effects (mental depression; ringing or buzzing in ears); hypotension (dizziness or lightheadedness, especially when getting up from a lying or sitting position); infection at the implantation site (irritation of the skin at the site where the pump is located); tremor (trembling or shaking); dysreflexia (facial flushing; headache; increased sweating; slow heartbeat); rigidity, muscle (abrupt discontinuation; in rare cases has advanced to rhabdomyolysis, multiple organ-system failure and death); paresthesias; death.

Secondary Actions or Rebound Effects: *fever, high* (abrupt discontinuation); *mental status, altered* (abrupt discontinuation); *spasticity, rebound* (increase in muscle spasms); *spasticity, return of baseline*.

Baclofen (Systemic)

Commercial name(s): *Apo-Baclofen*; *Lioresal*; *Novo-Baclofen*; *Nu-Baclofen*; *PMS-Baclofen*.

Category: Antispastic analgesic (in trigeminal neuralgia).

Conventional indications: Spasticity (treatment); Neuralgia, trigeminal (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **confusion**; clumsiness; depression, mental or other mood changes; hallucinations, visual and auditory.

VERTIGO: **dizziness or lightheadedness**; syncope (fainting).

EYE: miosis; mydriasis; strabismus.

VISION: hallucinations, visual; blurred or double vision.

HEARING: hallucinations, auditory; ringing or buzzing in ears.

NOSE: stuffy.

STOMACH: **nausea**; appetite, loss of; irritation, gastrointestinal (abdominal or stomach pain or discomfort; diarrhea).

ABDOMEN: irritation, gastrointestinal (abdominal or stomach pain or discomfort; diarrhea).

RECTUM: constipation.

BLADDER: amount of urine, decreased; urge to urinate, frequent; urination, difficult or painful; urination, uncontrolled.

KIDNEYS: fluid retention (swelling of ankles; weight gain); adrenal glands, enlarged and/or hemorrhagic, increase in (in female rats).

URINE: bloody or dark urine.

GENITALIA MALE: sexual problems.

GENITALIA FEMALE: cysts, ovarian.

CHEST: heartbeat, pounding; pain.

EXTREMITIES: **weakness, muscle** (may be caused by CNS effect or become apparent if baclofen-induced reduction of muscle tone unmasks existing paresis); clumsiness; unsteadiness; trembling, or other problems with muscle control.

SLEEP: **drowsiness**.

SKIN: dermatitis, allergic (skin rash or itching).

GENERALITIES: **weakness**; **weakness, muscle** (may be caused by CNS effect or become apparent if baclofen-induced reduction of muscle tone unmasks existing paresis); blood pressure, low; fluid retention (swelling of ankles; weight gain); heartbeat, pounding; trembling, or other problems with muscle control; convulsions.

DIAGNOSTIC TESTS: bloody or dark urine.

Secondary Actions or Rebound Effects: **Abrupt discontinuation:** convulsions; hallucinations, visual and auditory; mood or mental changes such as paranoid ideation or manic psychosis; nervousness or restlessness, unusual; spasticity, increased.

Balsalazide (Systemic)

Commercial name(s): Colazal.

Category: Bowel disease (inflammatory) suppressant.

Conventional indications: Ulcerative colitis (treatment).

Primary Actions or Pathogenetic Symptoms

NOSE: *rhinitis* (stuffy nose).

MOUTH: *dry mouth*.

THROAT: *pharyngitis* (flu-like symptoms).

STOMACH: *anorexia* (loss of appetite); *dyspepsia* (heart burn or upset stomach).

ABDOMEN: **pain, abdominal;** *flatulence*; *hepatocellular damage*; *hepatotoxicity*.

RECTUM: **diarrhea;** *constipation*.

BLADDER: *infection, urinary tract* (blood in urine; lower back pain; pain or burning while urinating).

KIDNEYS: *infection, urinary tract* (blood in urine; lower back pain; pain or burning while urinating).

COUGH: *coughing*.

EXTREMITIES: *arthralgia* (joint pain); *cramps*; *myalgia* (muscle pain).

SLEEP: *insomnia* (trouble sleeping or getting to sleep).

FEVER: *fever*.

GENERALITIES: *arthralgia* (joint pain); *cramps*; *fatigue*; *flu-like disorder*; *jaundice* (yellowish skin); *myalgia* (muscle pain).

DIAGNOSTIC TESTS: *liver function tests, elevated*.

Secondary Actions or Rebound Effects: *colitis, exacerbation of the symptoms of*.

Barbiturates (Systemic)

Commercial name(s): *Alurate; Amytal; Ancalixir; Barbita; Busodium; Butalan; Butisol; Gemonil; Luminal; Mebaral; Nembutal; Nova Rectal; Novopentobarb; Novosecobarb; Sarisol No. 2; Seconal; Solfoton; Tuinal*.

Category: Sedative-hypnotic [Amobarbital; Aprobarbital; Butabarbital; Pentobarbital; Phenobarbital (parenteral only); Secobarbital]; Anticonvulsant [Amobarbital (parenteral only); Mephobarbital; Metharbital; Pentobarbital (parenteral only); Phenobarbital; Secobarbital (parenteral only)]; Antihyperbilirubinemic [Phenobarbital].

Conventional indications: Anesthesia, adjunct [Amobarbital, butabarbital, pentobarbital, phenobarbital (parenteral), and secobarbital]; Narcoanalysis [Amobarbital (parenteral)]; Epilepsy, tonic-clonic seizure pattern (treatment) or Epilepsy, simple partial seizure pattern (treatment) [Phenobarbital]; Convulsions (treatment), Seizures (prophylaxis and treatment), Status epilepticus (treatment) or Tetanus (treatment adjunct) [Parenteral barbiturates, especially Phenobarbital]; Hyperbilirubinemia (prophylaxis and treatment) [Phenobarbital (oral and parenteral)]; Ischemia, cerebral (treatment) or Hypertension, cerebral (treatment) [Pentobarbital (parenteral)].

Primary Actions or Pathogenetic Symptoms

MIND: *peacefulness* (serenity, calm) [Amobarbital; Aprobarbital; Butabarbital; Pentobarbital; Phenobarbital (parenteral only); Secobarbital]; **clumsiness;** *anxiety* (rebound effect?); *depression, mental* (especially in geriatric or debilitated patients); *irritability*

(rebound effect?); *nervousness* (rebound effect?); *hallucinations*; coma; confusion, severe; poor judgement.

VERTIGO: *dizziness or lightheadedness*; *feeling faint*; staggering.

HEAD: *headache*.

EYE: constriction of the pupils, slight (in severe toxicity, pupils may be dilated); movements of the eyes, unusual (rebound effect?).

MOUTH: speech, slurred.

STOMACH: *nausea*; *vomiting*.

ABDOMEN: *hypobilirubinemia* [Phenobarbital]; *hepatic damage* (yellow eyes or skin).

RECTUM: *constipation*.

BLADDER: oliguria.

KIDNEYS: failure, renal [Barbiturates].

LARYNX AND TRACHEA: *laryngospasm* (with intravenous administration of barbiturates, especially if administered too rapidly).

RESPIRATION: *apnea* (with intravenous administration of barbiturates, especially if administered too rapidly); *bronchospasm* (with intravenous administration of barbiturates, especially if administered too rapidly); *depression, respiratory, severe* (with intravenous administration of barbiturates, especially if administered too rapidly); *laryngospasm* (with intravenous administration of barbiturates, especially if administered too rapidly); breathing slow or troubled; Cheyne-Stokes respiration; pneumonia; shortness of breath.

CHEST: *bronchospasm* (with intravenous administration of Barbiturates, especially if administered too rapidly); arrhythmias, cardiac; congestive heart failure; edema, pulmonary; heartbeat, slow; pneumonia; tachycardia.

EXTREMITIES: *clumsiness or unsteadiness*; *hypotension, orthostatic* (feeling faint; lightheadedness); *osteopenia or rickets* (bone pain, tenderness, or aching; loss of appetite; muscle weakness; unusual weight loss); *osteopenia or rickets* (bone pain, tenderness, or aching; loss of appetite; muscle weakness; unusual weight loss); reflexes, decrease in or loss of.

SLEEP: *drowsiness*.

DREAMS: *nightmares*; *dreaming, increased*.

FEVER: hypothermia (low body temperature).

SKIN: *allergic reaction* (skin rash or hives; swelling of eyelids, face, or lips; wheezing or tightness in chest) (especially in patients who have asthma, urticaria, angioedema, and similar conditions); *dermatitis, exfoliative* (fever; red, thickened, or scaly skin).

GENERALITIES: *hypobilirubinemia* [Phenobarbital]; **“hangover” effect**; *sensitivity to barbiturates* (confusion) (especially in geriatric or debilitated patients); *agranulocytosis* (sore throat and/or fever); *allergic reaction* (skin rash or hives; swelling of eyelids, face, or lips; wheezing or tightness in chest) (especially in patients who have asthma, urticaria, angioedema, and similar conditions); *anemia, megaloblastic* (unusual tiredness or weakness) (with chronic barbiturate use); *death; dependence, barbiturate* (a strong desire or need to continue taking the barbiturate; a tendency to increase the dose; a psychological dependence on the effects of the medication; and a physical dependence on the effects of the medication) (especially following prolonged use of high doses); *hypertension* (with intravenous administration of barbiturates, especially if administered too rapidly); *hypotension* (with chronic barbiturate use); *hypotension, orthostatic* (feeling faint;

lightheadedness); *osteopenia or rickets* (bone pain, tenderness, or aching; loss of appetite; muscle weakness; unusual weight loss); *Stevens-Johnson syndrome, possibly fatal* (bleeding sores on lips; chest pain; muscle or joint pain; painful sores, ulcers, or white spots in mouth; skin rash or hives; sore throat or fever); *thrombocytopenia* (unusual bleeding or bruising); *thrombophlebitis* (soreness, redness, swelling, or pain at injection site) (for parenteral dosage forms only); areflexia; arrhythmias, cardiac; Cheyne-Stokes respiration; coma; heartbeat, slow; hypothermia (low body temperature); reflexes, decrease in or loss of; shock syndrome, typical (apnea, circulatory collapse, respiratory arrest, and death); tachycardia; weakness, severe.

DIAGNOSTIC TESTS: *hypobilirubinemia* [Phenobarbital]; *agranulocytosis*; *anemia, megaloblastic*; *thrombocytopenia*; electrical activity in the brain, cease in; electroencephalogram (EEG), flat.

Secondary Actions or Rebound Effects: *paradoxical reaction* (unusual excitement) (especially in children or geriatric or debilitated patients); *trouble in sleeping*; *abstinence syndrome* (barbiturate dependence); *anxiety or restlessness*; *convulsions*; *dizziness*; *trembling of hands*; *twitching, muscle*; *weakness*; *fever*.

Barbiturates and Analgesics (Systemic)

Commercial name(s): *Amaphen*; *Anolor-300*; *Anoquan*; *Arcet*; *Ascomp with Codeine No.3*; *Axotal*; *Bancap*; *Bucet*; *Butace*; *Butalbital Compound with Codeine*; *Butalgen*; *Butinal with Codeine No.3*; *Conten*; *Dolmar*; *Endolor*; *Esgic*; *Esgic-Plus*; *Ezol*; *Femcet*; *Fiorgen*; *Fioricet*; *Fioricet with Codeine*; *Fiorinal*; *Fiorinal with Codeine No.3*; *Fiorinal-C 1/2*; *Fiorinal-C 1/4*; *Fiormor*; *Fortabs*; *Idenal with Codeine*; *Isobutal*; *Isobutyl*; *Isocet*; *Isolin*; *Isollyl*; *Isollyl with Codeine*; *Laniroif*; *Lanorinal*; *Marnal*; *Medigesic*; *Pacaps*; *Pharmagesic*; *Phenaphen with Codeine No.3*; *Phrenilin*; *Phrenilin Forte*; *Repan*; *Sedapap*; *Tecnal*; *Tecnal-C 1/2*; *Tecnal-C 1/4*; *Tencet*; *Tencon*; *Triad*; *Triaprin*; *Two-Dyne*; *Vibutal*.

Category: Analgesic.

Conventional indications: Headache, tension-type (treatment); Headache, migraine (treatment); Pain (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion* (especially likely to occur in geriatric or debilitated patients) [Barbiturates]; *depression, mental* (especially likely to occur in geriatric or debilitated patients) [Barbiturates; Codeine]; *hallucinations* [Barbiturates; Codeine]; *coma* [Barbiturates]; agitation, anxiety, nervousness, excitement, confusion, delirium or restlessness, severe [Aspirin; Caffeine; Codeine] (rebound effect?); behavior, changes in (in young children) [Aspirin]; encephalopathy, hepatic (with mental changes, confusion, agitation, or stupor) [Acetaminophen]; unconsciousness [Codeine].

VERTIGO: *dizziness*; *lightheadedness, mild*; *staggering*.

HEAD: *edema, cerebral* [Acetaminophen].

EYE: angioedema (large, hive-like swellings on eyelids) [Barbiturates; Codeine]; pupillary constriction, slight (in severe toxicity, pupils may be dilated) [Barbiturates]; movements of the eyes, unusual [Barbiturates] (rebound effect?); pupils, pinpoint [Codeine].

VISION: problems in vision [Aspirin].

HEARING: hearing loss [Aspirin]; ringing or buzzing in ears, continuing [Aspirin].

FACE: angioedema (large, hive-like swellings on face, lips) [Barbiturates; Codeine].

MOUTH: angioedema (large, hive-like swellings on tongue) [Barbiturates; Codeine]; speech, slurred [Barbiturates].

STOMACH: irritation, gastrointestinal (bloated or “gassy” feeling, mild stomach pain, heartburn or indigestion, nausea with or without vomiting) (especially likely with formulations containing aspirin); appetite, loss of [Acetaminophen]; bleeding, gastrointestinal [Acetaminophen]; cramps [Acetaminophen]; nausea [Acetaminophen; Aspirin; Caffeine]; pain [Acetaminophen; Aspirin; Caffeine]; vomiting [Acetaminophen; Aspirin; Caffeine]; vomiting with blood [Caffeine]; thirst, increased [Aspirin].

ABDOMEN: irritation, gastrointestinal (bloated or “gassy” feeling, mild stomach pain, heartburn or indigestion, nausea with or without vomiting) (especially likely with formulations containing aspirin); bleeding, gastrointestinal [Acetaminophen]; encephalopathy, hepatic (with mental changes, confusion, agitation, or stupor) [Acetaminophen]; hepatotoxicity (pain, tenderness, and/or swelling in upper abdominal area) [Acetaminophen]; liver damage [Acetaminophen]; liver function tests, abnormalities in [Acetaminophen]; overt hepatic disease or failure [Acetaminophen]; pain, abdominal [Caffeine].

RECTUM: diarrhea [Acetaminophen; Aspirin].

BLADDER: oliguria [Barbiturates]; urination, frequent [Caffeine].

KIDNEYS: failure, renal (signs include bloody or cloudy urine and sudden decrease in amount of urine) [Acetaminophen; Barbiturates]; tubular necrosis, renal [Acetaminophen].

URINE: bloody urine [Aspirin]; ketonuria [Aspirin]; proteinuria [Aspirin].

LARYNX AND TRACHEA: laryngeal edema, or laryngospasm, allergic (shortness of breath, troubled breathing, tightness in chest, or wheezing) [Codeine].

RESPIRATION: allergic reaction, bronchospastic (shortness of breath; troubled breathing; tightness in chest; wheezing) [Aspirin; Barbiturates]; bronchoconstriction, laryngeal edema, or laryngospasm, allergic (shortness of breath, troubled breathing, tightness in chest, or wheezing) [Codeine]; Cheyne-Stokes respiration [Barbiturates]; breath shortness of [Barbiturates, Aspirin]; breathing, fast or deep [Aspirin]; breathing, unusually slow or troubled [Barbiturates, Aspirin]; depression, respiratory (shortness of breath or unusually slow or troubled breathing) [Acetaminophen; Codeine]; pneumonia [Barbiturates].

CHEST: allergic reaction, bronchospastic (shortness of breath; troubled breathing; tightness in chest; wheezing) [Aspirin; Barbiturates]; bronchoconstriction (shortness of breath, troubled breathing, tightness in chest, or wheezing) [Codeine]; tachycardia [Barbiturates]; arrhythmias, cardiac [Acetaminophen; Barbiturates]; congestive heart failure [Barbiturates]; edema, pulmonary [Barbiturates]; heartbeat, fast or irregular [Caffeine]; heartbeat, slow [Barbiturates, Codeine]; pneumonia [Barbiturates].

EXTREMITIES: trembling, and/or uncontrolled muscle movements [Codeine]; flapping movements of the hands, uncontrollable (especially in elderly patients) [Aspirin]; sensitivity to touch or pain, increased [Caffeine]; trembling or twitching, muscle [Caffeine].

SLEEP: drowsiness.

FEVER: fever [Aspirin; Caffeine].

PERSPIRATION: sweating, increased [Acetaminophen].

SKIN: dermatitis, allergic (skin rash or hives) [Acetaminophen, Aspirin, Barbiturates, Codeine]; dermatitis, exfoliative (fever with or without chills; red, thickened, or scaly skin; swollen and/or painful glands; unusual bruising) [Barbiturates]; necrosis, toxic epidermal (redness, tenderness, itching, burning, or peeling of skin; sore throat; fever with or without chills) [Aspirin]; urticaria [Aspirin]; cold, clammy skin [Codeine].

GENERALITIES: pain absence; agranulocytosis (fever with or without chills; sores, ulcers, or white spots on lips or in mouth; sore throat) [Acetaminophen; Barbiturates]; anaphylaxis (bluish discoloration or flushing or redness of skin; coughing; difficulty in swallowing; dizziness or feeling faint, severe; skin rash, hives [may include giant urticaria], and/or itching; stuffy nose; large, hive-like swellings on eyelids, face, lips, and/or tongue; tightness in chest, troubled breathing, and/or wheezing, especially in asthmatic patients) [Aspirin]; angioedema (large, hive-like swellings on eyelids, face, lips, and/or tongue) [Barbiturates; Codeine]; convulsions [Codeine]; erythema multiforme (fever with or without chills; muscle cramps or pain; skin rash; sores, ulcers, or white spots on lips or in mouth) [Barbiturates]; hypotension (decreased blood pressure) [Barbiturates]; Stevens-Johnson syndrome (bleeding or crusting sores on lips; chest pain; fever with or without chills; muscle cramps or pain; skin rash; sores, ulcers, or white spots in mouth; sore throat) [Barbiturates]; thrombocytopenia (usually asymptomatic; rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin) [Acetaminophen; Barbiturates]; tiredness or weakness, unusual [Barbiturates]; trembling, and/or uncontrolled muscle movements [Codeine]; areflexia [Barbiturates]; body temperature, lowered [Barbiturates]; Cheyne-Stokes respiration [Barbiturates]; coma [Barbiturates]; dependence, barbiturate and codeine (a strong desire or need to continue taking the medication; a tendency to increase the dose; a psychological dependence on the effects of the medication; and a physical dependence on the effects of the medication) (especially following prolonged use of high doses); shock syndrome (apnea, circulatory collapse, respiratory arrest, and death) [Barbiturates]; tachycardia [Barbiturates]; tolerance (with frequent use); dehydration [Caffeine]; heartbeat, fast or irregular [Caffeine]; heartbeat, slow [Barbiturates, Codeine]; blood pressure, low [Codeine]; hyperglycemia (especially in children) [Aspirin]; hypoglycemia [Acetaminophen; Aspirin]; hypokalemia [Aspirin]; hyponatremia [Aspirin]; metabolic acidosis [Acetaminophen; Aspirin]; respiratory alkalosis [Aspirin]; sensitivity to touch or pain, increased [Caffeine]; trembling or twitching, muscle [Caffeine].

DIAGNOSTIC TESTS: agranulocytosis [Acetaminophen; Barbiturates]; thrombocytopenia [Acetaminophen; Barbiturates]; bloody urine [Aspirin]; electrical activity in the brain, cease in [Barbiturates]; electroencephalogram (EEG), flat [Barbiturates]; encephalographic abnormalities [Aspirin]; hyperglycemia (especially in children) [Aspirin]; hypoglycemia [Acetaminophen; Aspirin]; hypokalemia [Aspirin];

hyponatremia [Aspirin]; ketonuria [Aspirin]; metabolic acidosis [Acetaminophen; Aspirin]; proteinuria [Aspirin].

Secondary Actions or Rebound Effects: CNS stimulation, paradoxical (unusual excitement) (especially likely to occur in pediatric, geriatric, or debilitated patients) [Barbiturates]; headaches, rebound; coagulation defects [Acetaminophen]; coagulation, intravascular, disseminated [Acetaminophen]; collapse, cardiovascular [Acetaminophen].

Barium Sulfate (Local)

Commercial name(s): ACB; Anatrast; Baricon; Baro-cat; Barobag; Barosperse; E-Z-AC; E-Z-CAT; E-Z-Disk; E-Z-Dose; E-Z-HD; E-Z-Jug; E-Z-Paque; E-Z-Paque Enema; E-Z-Paque Liquid; E-Z-Paste Esophageal Cream; Enecat; Entero-H; Entrobar; Epi-C; Esobar; Esopho-CAT Esophageal Cream; Esophotrast Esophageal Cream; EvacuPaste; Exacta I; Exacta II; Flo-Coat; Gil-Paque; HD 200 Plus; HD 85; Liqui-Jug; Liquid Barosperse; Liquid HD; Liquipake; Maxibar; Medebag; Medebar Plus; Polibar; Polibar Flavored; Polibar Liquid; Polibar Plus; Polibar Rapide; Prepcat; Probar; Read-CAT; Read-CAT 2; Read-CAT Unflavored; Recto-Barium; Sol-O-Pake; Sol-O-Pake Liquid; Tomocat; Tomocat 1000; Tonojug 2000; Tonopaque; Ultra-R; Unibar-100; mede-SCAN.

Category: Diagnostic aid, radiopaque (gastrointestinal disorders).

Conventional indications: Radiography, gastrointestinal [Oral or rectal barium sulfate suspension, and the oral tablet]; Body imaging, computed tomographic [Oral or rectal barium sulfate suspension].

Primary Actions or Pathogenetic Symptoms

ABDOMEN: **cramping, intestinal**; *appendicitis* (stomach or lower abdominal pain, severe cramping, bloating, nausea, or vomiting).

RECTUM: **constipation; diarrhea**; *impaction, fecal* (severe continuing constipation)

GENERALITIES: *anaphylactoid reaction* (wheezing, tightness in chest, or troubled breathing).

Basiliximab (Systemic)

Commercial name(s): *Simulect*.

Category: Immunosuppressant; Monoclonal antibody.

Conventional indications: Transplant rejection, kidney (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation; anxiety; depression*.

VERTIGO: **dizziness**.

HEAD: *hypertrichosis* (excessive hair growth); headache.

VISION: *abnormal vision*.

FACE: **edema** (swelling of face).

MOUTH: **candidiasis** (white patches in the mouth or on the tongue); hyperplasia gingival (bleeding, tender, or enlarged gums); stomatitis (sores in the mouth).

THROAT: **candidiasis** (white patches in the throat); **pharyngitis** (sore throat).

STOMACH: **dyspepsia** (heartburn); **nausea**; **vomiting**; bleeding, gastrointestinal (blood in the stool).

ABDOMEN: **pain, abdominal**; bleeding, gastrointestinal (blood in the stool).

RECTUM: **constipation**; **diarrhea**; bleeding, gastrointestinal (blood in the stool).

BLADDER: **dysuria** (painful urination); retention, urinary (difficulty in urinating).

RESPIRATION: **dyspnea** (shortness of breath).

COUGH: **cough**.

CHEST: arrhythmia (dizziness); edema, pulmonary (coughing; shortness of breath); pain.

BACK: **pain**.

EXTREMITIES: **edema** (swelling of ankles, feet, or lower legs); arthralgia (joint pain); hypoesthesia ("stocking and gloves" sensation of the hands or feet); myalgia (muscle pain); neuropathy (numbness or pain in the legs).

SLEEP: **insomnia** (trouble in sleeping).

FEVER: **fever**.

SKIN: **acne**; hypertrichosis (excessive hair growth); pruritus (itching); skin rash.

GENERALITIES: **immunosuppression**; **asthenia** (loss of energy or weakness); **edema** (swelling of ankles, body, face, feet, or lower legs); **hypertension**; **infection** (fever or chills); **tremor** (trembling or shaking of hands or feet); **weight gain**; arrhythmia (dizziness); arthralgia (joint pain); fatigue; hematoma (bruising); hypertrichosis (excessive hair growth); hypoesthesia ("stocking and gloves" sensation of the hands or feet); hypotension (dizziness); myalgia (muscle pain); neuropathy (numbness or pain in the legs); paresthesia (tingling).

Becaplermin (Topical)

Commercial name(s): *Regranex*.

Category: Biological response modifier (topical); Platelet-derived growth factor (topical).

Conventional indications: Ulcers, dermal (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: erythematous rash, local (reddened skin near ulcer; skin rash near ulcer).

Belladonna Alkaloids and Barbiturates (Systemic)

Commercial name(s): *Antrocol*; *Barbidonna*; *Barbidonna No. 2*; *Barophen*; *Bellalphen*; *Butibel*; *Donnamor*; *Donnapine*; *Donnatal*; *Donnatal Extentabs*; *Donnatal No. 2*; *Donphen*; *Hyosophen*; *Kinesed*; *Malatal*; *Relaxadon*; *Spaslin*; *Spasmolin*; *Spasmophen*; *Spasquid*; *Susano*.

Category: Anticholinergic-sedative.

Conventional indications: Ulcer, peptic (treatment adjunct); Bowel syndrome, irritable (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: *memory, loss of* (especially in elderly patients); *agitation or excitement* (geriatric or debilitated patients); clumsiness; confusion; hallucinations.

VERTIGO: *dizziness.*

HEAD: *headache.*

EYE: *mydriatic effect* (increased sensitivity of eyes to sunlight); *pressure, intraocular, increased* (eye pain).

VISION: *accommodation, difficulty in eye* (blurred vision); blurred vision, continuing; changes in near vision.

NOSE: *dryness.*

MOUTH: *dryness; saliva secretion, decreased* (difficulty in swallowing); speech, slurred.

THROAT: *dryness.*

STOMACH: *nausea; vomiting.*

ABDOMEN: *feeling bloated.*

RECTUM: *constipation.*

BLADDER: *urination, difficult.*

RESPIRATION: *depression, respiratory* (shortness of breath or troubled breathing).

CHEST: *milk, breast, decreased flow of;* heartbeat, fast.

EXTREMITIES: *clumsiness or unsteadiness.*

SLEEP: *drowsiness.*

FEVER: *temperature of the body, rapid increase in* (especially children, where the environmental temperature is high, due to suppression of sweat gland activity); fever.

PERSPIRATION: *sweating, decreased.*

SKIN: *dryness; allergic reaction* (skin rash or hives); warmth and flushing of skin, unusual (particularly in blush area because of dilation of cutaneous blood vessels).

GENERALITIES: *tiredness or weakness, unusual; agranulocytosis* (sore throat and fever); *hepatitis; jaundice* (yellow eyes or skin); *temperature of the body, rapid increase in* (especially children, where the environmental temperature is high, due to suppression of sweat gland activity); *thrombocytopenia* (unusual bleeding or bruising); heartbeat, fast; Infants, patients with Down's syndrome, and children with spastic paralysis or brain damage may show an increased response to belladonna alkaloids, thus increasing the potential for side effects; dosage adjustments may be required in these patients; seizures; warmth and flushing of skin, unusual (particularly in blush area because of dilation of cutaneous blood vessels).

DIAGNOSTIC TESTS: *agranulocytosis* (sore throat and fever); *thrombocytopenia.*

Secondary Actions or Rebound Effects: paradoxical reaction (unusual excitement, nervousness, restlessness, or irritability).

Bentiromide (Systemic)

Other commonly used names: BTPABA; PFD; PFT.

Commercial name(s): *Chymex.*

Category: Diagnostic aid (pancreatic function).

Conventional indications: Pancreatic insufficiency (diagnosis).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

STOMACH: *nausea*; *vomiting*.

ABDOMEN: *gas*.

RECTUM: diarrhea.

RESPIRATION: *allergic reaction* (shortness of breath or troubled breathing).

GENERALITIES: *weakness*; *allergic reaction* (shortness of breath or troubled breathing).

Bentoquatam (Topical)

Commercial name(s): *IvyBlock*.

Category: Skin protectant, barrier (topical).

Conventional indications: Dermatitis, allergic contact (prophylaxis).

Primary Actions or Pathogenetic Symptoms

SKIN: *erythema, mild* (mild redness of skin).

Benzodiazepines (Systemic)

Commercial name(s): *Alprazolam Intensol*; *Alti-Alprazolam*; *Alti-Bromazepam*; *Alti-Clonazepam*; *Alti-Triazolam*; *Apo-Alpraz*; *Apo-Chlordiazepoxide*; *Apo-Clonazepam*; *Apo-Clorazepate*; *Apo-Diazepam*; *Apo-Flurazepam*; *Apo-Lorazepam*; *Apo-Oxazepam*; *Apo-Temazepam*; *Apo-Triazo*; *Ativan*; *Clonapam*; *Dalmane*; *Diastat*; *Diazemuls*; *Diazepam Intensol*; *Dizac*; *Doral*; *Frisium*; *Gen-Alprazolam*; *Gen-Bromazepam*; *Gen-Clonazepam*; *Gen-Triazolam*; *Halcion*; *Klonopin*; *Lectopam*; *Librium*; *Lorazepam Intensol*; *Mogadon*; *Niravam*; *Novo-Alprazol*; *Novo-Clopat*; *Novo-Dipam*; *Novo-Flupam*; *Novo-Lorazem*; *Novo-Poxide*; *Novo-Temazepam*; *Novo-Triolam*; *Novoxapam*; *Nu-Alpraz*; *Nu-Loraz*; *PMS-Clonazepam*; *PMS-Diazepam*; *Paxipam*; *ProSom*; *Restoril*; *Rivotril*; *Serax*; *Somnol*; *Tranxene*; *Tranxene T-Tab*; *Tranxene-SD*; *Tranxene-SD Half Strength*; *Valium*; *Vivol*; *Xanax*; *Xanax TS*.

Category: Antianxiety agent [Alprazolam; Bromazepam; Chlordiazepoxide; Clorazepate; Diazepam; Halazepam; Ketazolam; Lorazepam; Oxazepam; Prazepam]; Sedative-hypnotic [Alprazolam; Bromazepam; Chlordiazepoxide; Clonazepam; Clorazepate; Diazepam; Estazolam; Flurazepam; Halazepam; Ketazolam; Lorazepam; Nitrazepam; Oxazepam; Prazepam; Quazepam; Temazepam; Triazolam]; Amnestic [Diazepam (parenteral only); Lorazepam (parenteral only)]; Anticonvulsant [Clobazam; Clonazepam; Clorazepate; Diazepam; Lorazepam (parenteral only); Nitrazepam]; Antipanic agent [Alprazolam; Chlordiazepoxide (parenteral only); Clonazepam; Diazepam; Lorazepam]; Skeletal muscle relaxant adjunct [Diazepam; Lorazepam]; Antitremor agent [Alprazolam; Chlordiazepoxide (oral only); Diazepam (oral only); Lorazepam (oral only)]; Antiemetic, in cancer chemotherapy [Lorazepam (parenteral only)].

Conventional indications: Anxiety (treatment) [Alprazolam, bromazepam, chlordiazepoxide, clorazepate, diazepam, halazepam, ketazolam, lorazepam, oxazepam, and prazepam]; Anxiety associated with mental depression (treatment adjunct) [Alprazolam, lorazepam (oral), and oxazepam]; Alcohol withdrawal (treatment) [Chlordiazepoxide, clorazepate, diazepam, lorazepam, and oxazepam]; Anesthesia, adjunct [Parenteral chlordiazepoxide and parenteral diazepam]; Amnesia, in cardioversion or Anxiety, in cardioversion (treatment) [Parenteral diazepam]; Amnesia, in endoscopic procedures or Anxiety, in endoscopic procedures (treatment adjunct) [Parenteral diazepam and [parenteral lorazepam]; Sedation, conscious [Parenteral diazepam]; Insomnia (treatment) [Estazolam, flurazepam, nitrazepam, quazepam, temazepam, and triazolam]; Convulsions (treatment adjunct) or Status epilepticus (treatment adjunct) [Diazepam injection, sterile emulsion, and diazepam for rectal solution]; Convulsive disorders (treatment adjunct) [Oral diazepam]; Epilepsy (treatment adjunct) [Clobazam]; Epilepsy, Lennox-Gastaut syndrome (treatment), Epilepsy, akinetic seizure pattern (treatment) or Epilepsy, myoclonic seizure pattern (treatment) [Clonazepam]; Epilepsy, myoclonic seizure pattern (treatment adjunct) [Oral diazepam]; Epilepsy, absence seizure pattern (treatment) [Clonazepam]; Epilepsy, simple partial seizure pattern (treatment adjunct) or Epilepsy, complex partial seizure pattern (treatment adjunct) [Clorazepate]; Epilepsy, simple partial seizure pattern (treatment) or [Epilepsy, complex partial seizure pattern (treatment) [Clonazepam]; Epilepsy, tonic-clonic seizure pattern (treatment) [Clonazepam]; Panic disorders (treatment) [Alprazolam, chlordiazepoxide (parenteral), clonazepam, diazepam, and lorazepam]; Agoraphobia [Alprazolam]; Spasm, skeletal muscle (treatment adjunct) [Diazepam and lorazepam]; Nausea and vomiting, cancer chemotherapy-induced (prophylaxis) [Lorazepam injection, alone or in combination with other agents]; Headache, tension (treatment) [Chlordiazepoxide, diazepam, lorazepam, and possibly other benzodiazepines]; Tremors (treatment) [Oral alprazolam, chlordiazepoxide, diazepam, and lorazepam].

Primary Actions or Pathogenetic Symptoms

MIND: *peacefulness* (serenity, calm); *amnesia, anterograde* (lack of memory of events taking place after benzodiazepine is taken); *confusion* (especially in the elderly and in patients with cerebral impairment); *depression, mental*; *euphoria* (false sense of well-being); *perceptual disturbances* (including hyperacusis [increased sense of hearing]; hypersensitivity to touch and pain; parasthesias [tingling, burning, or prickly sensations]; or photophobia [sensitivity of eyes to light]); *behavior, bizarre*; *delirium* (confusion as to time, place, or person); *delusions* (false beliefs that cannot be changed by facts); *depersonalization* (loss of sense of reality); *disorientation*; *hallucinations*; *inhibition, decreased*; *paranoid symptoms* (feelings of suspicion and distrust); coma.

VERTIGO: *dizziness or lightheadedness*; staggering.

HEAD: *headache*.

VISION: *blurred vision or other changes in vision*.

MOUTH: *speech, slurred*; *dryness*; *salivation, excessive* (watering of mouth).

THROAT: *pain in throat* [parenteral diazepam].

STOMACH: *cramps*; *nausea*; *pain*; *thirst, increased*; *vomiting*.

ABDOMEN: *cramps*; *pain, abdominal*; *hepatic dysfunction* (yellow eyes or skin).

RECTUM: *constipation*; *diarrhea*.

BLADDER: *urination, problems with.*

GENITALIA MALE: *libido, changes in* (changes in sexual desire or ability).

GENITALIA FEMALE: *libido, changes in* (changes in sexual desire or ability).

LARYNX AND TRACHEA: *laryngospasm* [Parenteral Diazepam].

RESPIRATION: *apnea* (especially in geriatric or severely ill patients and in patients with limited pulmonary reserve or unstable cardiovascular status or if intravenous administration of medication is too rapid) [Parenteral administration]; *dyspnea* [Parenteral Diazepam]; *hyperventilation* [Parenteral Diazepam]; *laryngospasm* [Parenteral Diazepam]; *respiration depressed* [Parenteral Diazepam]; troubled breathing.

COUGH: *coughing* [Parenteral Diazepam].

EXPECTORATION: *bronchial secretions, increased.*

CHEST: *tachycardia/palpitation* (fast, pounding, or irregular heartbeat); *bradycardia* (especially in geriatric or severely ill patients and in patients with limited pulmonary reserve or unstable cardiovascular status or if intravenous administration of medication is too rapid) [Parenteral administration]; *cardiac arrest* (especially in geriatric or severely ill patients and in patients with limited pulmonary reserve or unstable cardiovascular status or if intravenous administration of medication is too rapid) [Parenteral administration]; *pain* [Parenteral Diazepam]; heartbeat, slow.

EXTREMITIES: *relaxant, skeletal muscle* [Diazepam; Lorazepam]; **ataxia** (clumsiness or unsteadiness) (especially in elderly or debilitated patients); *spasm, muscle; tremor* (trembling or shaking); *weakness, muscle*; reflexes, decreased.

SLEEP: **drowsiness, including residual daytime drowsiness when used as a hypnotic** (especially in elderly or debilitated patients); *wakefulness* (during the last third of the night) (over several weeks of nightly dosing with short to intermediate half-life benzodiazepines).

SKIN: *allergic reaction* (skin rash or itching); psoriasis, psoriasiform eruption [1].

GENERALITIES: *relaxant, skeletal muscle* [Diazepam; Lorazepam]; **ataxia** (clumsiness or unsteadiness) (especially in elderly or debilitated patients); *perceptual disturbances* (including hyperacusis [increased sense of hearing]; hypersensitivity to touch and pain; parasthesias [tingling, burning, or prickly sensations]; or photophobia [sensitivity of eyes to light]); *spasm, muscle; tachycardia/palpitation* (fast, pounding, or irregular heartbeat); *tiredness or weakness, unusual; tremor* (trembling or shaking); *agranulocytosis* (chills, fever, sore throat; unusual tiredness or weakness); *anemia* (unusual tiredness or weakness); *bradycardia* (especially in geriatric or severely ill patients and in patients with limited pulmonary reserve or unstable cardiovascular status or if intravenous administration of medication is too rapid) [Parenteral administration]; *dependence and tolerance, psychological or physical* (especially with high-dose or prolonged use); *extrapyramidal effects, dystonic* (uncontrolled movements of body, including the eyes); *hypotension* (low blood pressure); *leukopenia* (chills, fever, sore throat); *neutropenia* (chills, fever, and/or sore throat; ulcers or sores in mouth or throat, continuing; unusual tiredness or weakness); *phlebitis or venous thrombosis* (redness, swelling, or pain at injection site) (for parenteral dosage forms only); *seizures; thrombocytopenia* (unusual bleeding or bruising); *weakness, muscle*; coma; death; heartbeat, slow; reflexes, decreased.

DIAGNOSTIC TESTS: *agranulocytosis; anemia; leukopenia; neutropenia; thrombocytopenia.*

Complementary Bibliography: [1] Kim GK, Del Rosso JQ. Drug-provoked psoriasis: is it drug induced or drug aggravated? Understanding pathophysiology and clinical relevance. *J Clin Aesthet Dermatol* 2010; **3**(1): 32-38.

Secondary Actions or Rebound Effects: **insomnia, rebound** (trouble in sleeping); **irritability; nervousness; anxiety; cramps, abdominal, stomach or muscle; sweating, increased; tachycardia** (fast or pounding heartbeat); **convulsions; death; paradoxical reactions** (including agitation; aggressive behavior; excitement, irritability, or nervousness, unusual; hallucinations [seeing, hearing, or feeling things that are not there]; hostility or rage [outbursts of anger]; insomnia [trouble in sleeping]).

Benzonatate (Systemic)

Commercial name(s): *Tessalon*.

Category: Antitussive.

Conventional indications: Cough (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; hallucinations, visual* (seeing things that are not there); restlessness.

VERTIGO: *dizziness, mild*.

HEAD: *headache*.

EYE: *burning sensation*.

NOSE: *stuffy*.

MOUTH: anesthesia, oropharyngeal (if capsules are chewed or dissolved in mouth).

THROAT: anesthesia, oropharyngeal (if capsules are chewed or dissolved in mouth).

STOMACH: *nausea; vomiting*.

RECTUM: *constipation*.

LARYNX AND TRACHEA: *laryngospasm* (difficulty in speaking or breathing).

RESPIRATION: *bronchospasm* (shortness of breath, troubled breathing, tightness in chest, or wheezing); *laryngospasm* (difficulty in speaking or breathing).

CHEST: *bronchospasm* (shortness of breath, troubled breathing, tightness in chest, or wheezing).

SLEEP: *drowsiness, mild*.

SKIN: *pruritus* (itching); *skin rash*.

GENERALITIES: *cardiovascular collapse; CNS depression; convulsions; death; trembling*.

Benzoyl Peroxide (Topical)

Commercial name(s): *10 Benzagel; 10 Benzagel Acne Gel; 2.5 Benzagel Acne Gel; 2.5 Benzagel Acne Lotion; 5 Benzagel; 5 Benzagel Acne Gel; 5 Benzagel Acne Lotion; 5 Benzagel Acne Wash; 5 Benzagel Liquid Acne Soap; Acetoxyl 10 Gel; Acetoxyl 2.5 Gel; Acetoxyl 20 Gel; Acetoxyl 5 Gel; Acne-Aid Aqua Gel; Acne-Aid Vanishing Cream; Acnomel B.P. 5 Lotion; Ambi 10 Acne Medication; Benoxyl 10 Lotion; Benoxyl 20 Lotion; Benoxyl 5*

Lotion; BenzaShave 10 Cream; BenzaShave 5 Cream; Benzac 10 Gel; Benzac 5 Gel; Benzac AC 10 Gel; Benzac AC 21/2 Gel; Benzac AC 5 Gel; Benzac AC Wash 10; Benzac AC Wash 21/2; Benzac AC Wash 5; Benzac W 10 Gel; Benzac W 10 Gel; Benzac W 21/2 Gel; Benzac W 5 Gel; Benzac W 5 Gel; Benzac W Wash 10; Benzac W Wash 5; Brevoxyl-4 Cleansing Lotion; Brevoxyl-4 Gel; Brevoxyl-8 Cleansing Lotion; Brevoxyl-8 Gel; Clean & Clear Persagel 10; Clean & Clear Persagel 5; Clear By Design 2.5 Gel; Clearasil BP Plus 5 Lotion; Clearasil BP Plus Skin Tone Cream; Clearasil Maximum Strength Medicated Anti-Acne 10 Tinted Cream; Clearasil Maximum Strength Medicated Anti-Acne 10 Vanishing Cream; Clearasil Maximum Strength Medicated Anti-Acne 10 Vanishing Lotion; Clearplex 10; Clearplex 5; Cuticura Acne 5 Cream; Del-Aqua-10 Gel; Del-Aqua-5 Gel; Dermacne; Dermoxyl 10 Gel; Dermoxyl 20 Gel; Dermoxyl 5 Gel; Dermoxyl Aqua 5 Gel; Desquam-E 10 Gel; Desquam-E 2.5 Gel; Desquam-E 5 Gel; Desquam-X 10 Bar; Desquam-X 10 Gel; Desquam-X 10 Wash; Desquam-X 2.5 Gel; Desquam-X 5 Gel; Desquam-X 5 Wash; Exact 5 Tinted Cream; Exact 5 Vanishing Cream; Fostex 10 BPO Gel; Fostex 10 Bar; Fostex 10 Cream; Fostex 10 Wash; Fostex 5 Gel; HOxyl 10 Gel; HOxyl 2.5 Gel; HOxyl 20 Gel; HOxyl 5 Gel; Loroxide 5 Lotion; Loroxide 5.5 Lotion; Neutrogena Acne Mask 5; Noxzema Clear-ups Maximum Strength 10 Lotion; Noxzema Clear-ups On-The-Spot 10 Lotion; Oxy 10 Balance Emergency Spot Treatment Cover-Up Formula Gel; Oxy 10 Balance Emergency Spot Treatment Invisible Formula Gel; Oxy 10 Balance Maximum Medicated Face Wash; Oxy 5 Regular Strength Cover-Up Cream; Oxy 5 Regular Strength Vanishing Lotion; Oxy 5 Sensitive Skin Vanishing Lotion; Oxy Balance Deep Action Night Formula Lotion; Oxy Balance Emergency Spot Treatment Invisible Formula; Oxyderm 10 Lotion; Oxyderm 20 Lotion; Oxyderm 5 Lotion; PanOxyl 10 Bar; PanOxyl 10 Gel; PanOxyl 10 Wash; PanOxyl 15 Gel; PanOxyl 20 Gel; PanOxyl 5 Bar; PanOxyl 5 Gel; PanOxyl 5 Wash; PanOxyl AQ 10 Gel; PanOxyl AQ 21/2 Gel; PanOxyl AQ 5 Gel; PanOxyl Aquagel 10; PanOxyl Aquagel 2.5; PanOxyl Aquagel 20; PanOxyl Aquagel 5; Solugel 4; Solugel 8; Student's Choice Acne Medication; Triaz; Triaz Cleanser; Xerac BP 5.

Category: Antiacne agent (topical); Keratolytic (topical).

Conventional indications: Acne vulgaris (treatment); Ulcer, decubital (treatment)] or Ulcer, stasis (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: contact dermatitis, allergic (burning, blistering, crusting, itching, severe redness, or swelling of skin); dryness; irritant effect (painful irritation of skin); peeling; redness; skin rash; stinging, mild; warmth, feeling of; burning, severe; itching, severe; scaling, severe; swelling, severe.

Benzyl Benzoate (Topical)

Commercial name(s): *Ascabiol*.

Category: Pediculicide; Scabicide.

Conventional indications: Pediculosis (treatment); Scabies (treatment).

Primary Actions or Pathogenetic Symptoms

BLADDER: retention, urinary (difficulty in passing urine [dribbling]).

SKIN: *irritation of skin, slight* (burning sensation; itching) (rebound effect?); contact dermatitis (with repeated use) (blister formation, crusting, itching, oozing, reddening, or scaling of skin)

GENERALITIES: convulsions or excitations, CNS (muscle spasm or jerking of all extremities; sudden loss of consciousness).

Beractant (Intratracheal-Local)

Commercial name(s): *Survanta*.

Category: Pulmonary surfactant.

Conventional indications: Respiratory distress syndrome, neonatal (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *hemorrhage, intracranial* (due to hemodynamic changes).

LARYNX AND TRACHEA: **constriction, trachea.**

RESPIRATION: *apnea*.

CHEST: **bradycardia, transient** (< 60 beats per minute).

SKIN: *pallor*.

GENERALITIES: **bradycardia, transient** (< 60 beats per minute); **carbon dioxide tension, increased; oxygen desaturation; *hypercarbia; hypertension; hypocarbia; hypotension; vasoconstriction; sepsis, nosocomial***.

DIAGNOSTIC TESTS: **oxygen desaturation; *hypercarbia; hypocarbia***.

Beta-adrenergic Blocking Agents (Ophthalmic)

Commercial name(s): *AKBeta; Apo-Timop; Betagan; Betaxon; Betimol; Betoptic; Betoptic S; Novo-Levobunolol; Novo-Timol; Ocupress; Ophtho-Bunolol; OptiPranolol; Tim-AK; Timoptic; Timoptic in Ocudose; Timoptic-XE*.

Category: Antiglaucoma agent (ophthalmic).

Conventional indications: Glaucoma, open-angle (treatment); Hypertension, ocular (treatment); Glaucoma, angle-closure (treatment adjunct) [Betaxolol, carteolol, levobetaxolol, levobunolol, metipranolol, and timolol]; Glaucoma, angle-closure, *during or after* iridectomy (treatment); Glaucoma, malignant (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety* [Levobetaxolol and metipranolol]; *confusion* [Betaxolol, metipranolol, and timolol]; *depression, mental* [Betaxolol, metipranolol, and timolol]; *hallucinations* [Timolol]; *nervousness* [Levobetaxolol and metipranolol].

VERTIGO: *dizziness; feeling faint; vertigo* (dizziness; feeling of constant movement of self or surroundings) [Levobetaxolol].

HEAD: *alopecia* (hair loss) [Betaxolol, levobetaxolol, and timolol]; *headache*.

EYE: *hypotension*; **hyperemia, conjunctival** (redness of eyes or inside of eyelids) [Carteolol]; **stinging of eye or other eye irritation, transient upon administration of medication** [Betaxolol, levobetaxolol, levobunolol, and metipranolol]; *anisocoria* (different size pupils of the eyes) [Betaxolol]; *blepharitis* (irritation or inflammation of eyelid) [Metipranolol; Timolol]; *blepharoconjunctivitis* (irritation or inflammation of eye and eyelid) [Carteolol and levobunolol]; *blepharoptosis* (droopy upper eyelid) [Carteolol and timolol]; *browache* [Carteolol and metipranolol]; *burning* (more frequent for carteolol and levobunolol); *cataracts* (blurred or decreased vision) [Levobetaxolol]; *conjunctivitis* (irritation or inflammation of eye) [Metipranolol and timolol]; *crusting of eyelashes* [Betaxolol suspension]; *dermatitis of eyelid* (irritation or inflammation of eyelid) [Metipranolol]; *dryness* [Betaxolol suspension and timolol]; *edema* (swelling of eye or eyelid) [Carteolol and metipranolol]; *iridocyclitis* (irritation or inflammation of eye) [Levobunolol]; *itching* (more frequent for carteolol and levobunolol); *keratitis* (irritation or inflammation of eye) [Betaxolol and timolol]; *keratitis, punctate, corneal* (irritation or inflammation of eye) [Betaxolol]; *pain* [Betaxolol suspension]; *redness* (more frequent for carteolol and levobunolol); *sensation, foreign body* (feeling of having something in the eye) [Betaxolol]; *staining, corneal* (discoloration of the eyeball) [Betaxolol and carteolol]; *sensitivity, corneal* [Carteolol]; *sensitivity of eye to light, increased* [Betaxolol, carteolol, and metipranolol]; *stinging* (more frequent for carteolol and levobunolol); *vitreous disorders* [Levobetaxolol]; *watering of eye* (more frequent for carteolol and levobunolol); *sensitivity, corneal, decreased* [Betaxolol, levobunolol, and timolol].

VISION: **blurred vision, transient** [Levobetaxolol and the timolol maleate gel-forming solution]; **night vision, decreased** [Carteolol]; *diplopia* (seeing double) [Timolol]; *disturbances in vision* (blurred vision or other change in vision) [Betaxolol suspension, carteolol, metipranolol, and timolol].

EAR: *otitis media* (earache; ringing or buzzing in ears) [Levobetaxolol]; *pain* [Levobetaxolol].

HEARING: *tinnitus* (ringing in the ears) [Levobetaxolol and timolol].

NOSE: *congestion* (stuffy nose) [Timolol]; *epistaxis* (bleeding nose) [Metipranolol and timolol]; *rhinitis* or *sinusitis* (runny nose) [Carteolol, levobetaxolol, metipranolol, and timolol].

MOUTH: *glossitis* (redness or irritation of the tongue) [Betaxolol]; *taste, change in* [Carteolol and Levobetaxolol].

THROAT: *pharyngitis* (dryness or soreness of throat; hoarseness) [Levobetaxolol].

STOMACH: *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion) [Levobetaxolol]; *nausea* [Metipranolol; Timolol]; *vomiting* [Metipranolol; Timolol].

RECTUM: *constipation* [Levobetaxolol]; *diarrhea* [Timolol].

BLADDER: *cystitis* (bloody or cloudy urine; difficult, burning, or painful urination) [Levobetaxolol].

GENITALIA MALE: *impotence* (decreased sexual ability) [Timolol].

RESPIRATION: *troubled breathing* (especially in patients with predisposition to bronchoconstriction); *wheezing* (especially in patients with predisposition to bronchoconstriction).

COUGH: *coughing* (especially in patients with predisposition to bronchoconstriction).

CHEST: abscess, breast (breast pain) [Levobetaxolol]; congestive heart failure (swelling of feet, ankles, or lower legs) [Betaxolol and Timolol]; heartbeat, irregular, slow, or pounding; heartblock [Betaxolol, Levobetaxolol, and Timolol]; pain [Timolol]; tachycardia (fast, pounding, or irregular heartbeat) [Levobetaxolol]; depression, myocardial; failure, cardiac; heart rate, resting, slight reduction in [Timolol Maleate].

EXTREMITIES: arthritis (joint aches or pain) [Levobetaxolol, Metipranolol]; ataxia (clumsiness or unsteadiness) [Levobunolol]; gout (ankle, knee, or great toe joint pain; ankle, knee, or great toe joint swelling; lower back or side pain) [Levobetaxolol]; hypertonia (muscle tightness or stiffness) [Levobetaxolol]; myalgia (muscle aches or pain) [Levobetaxolol, Metipranolol]; tendinitis (inflammation, pain, or swelling in muscles) [Levobetaxolol].

SLEEP: drowsiness [Metipranolol and Timolol]; insomnia (trouble in sleeping) [Betaxolol and Carteolol].

CHILL: chills.

FEVER: fever.

SKIN: allergic reaction (skin rash, hives, or itching) [all except Levobunolol]; alopecia (hair loss) [Betaxolol, Levobetaxolol, Timolol]; dermatitis (blistering, crusting, irritation, itching, or reddening of skin; dry, scaly skin) [Levobetaxolol]; necrosis, toxic epidermal (raw or red areas of the skin) [Betaxolol]; psoriasis (red, scaling, or crusted skin) [Levobetaxolol].

GENERALITIES: alopecia (hair loss) [Betaxolol, Levobetaxolol, and Timolol]; anomaly, vascular [Levobetaxolol]; arthritis (joint aches or pain) [Levobetaxolol and Metipranolol]; ataxia (clumsiness or unsteadiness) [Levobunolol]; gout (ankle, knee, or great toe joint pain; ankle, knee, or great toe joint swelling; lower back or side pain) [Levobetaxolol]; heartbeat, irregular, slow, or pounding; hypertension [Levobetaxolol, Metipranolol, and Timolol]; hypertonia (muscle tightness or stiffness) [Levobetaxolol]; hypotension (confusion; faintness; light-headedness) [Levobetaxolol]; infection (chills; fever) [Levobetaxolol]; lupus erythematosus, systemic [Timolol]; myalgia (muscle aches or pain) [Levobetaxolol and Metipranolol]; paresthesia (burning or prickling feeling on body) [Timolol]; tachycardia (fast, pounding, or irregular heartbeat) [Levobetaxolol]; tendinitis (inflammation, pain, or swelling in muscles) [Levobetaxolol]; tiredness or weakness, unusual; depression, myocardial; failure, cardiac; heart rate, resting, slight reduction in [Timolol Maleate].

DIAGNOSTIC TESTS: hypercholesterolemia [Levobetaxolol]; hyperlipidemia [Levobetaxolol].

Beta-adrenergic Blocking Agents (Systemic)

Commercial name(s): Apo-Atenolol; Apo-Metoprolol; Apo-Metoprolol (Type L); Apo-Propranolol; Apo-Timol; Betaloc; Betaloc Durules; Betapace; Blocadren; Cartrol; Corgard; Detensol; Inderal; Inderal LA; Kerlone; Levatol; Lopresor; Lopresor SR; Lopressor; Monitan; Normodyne; Novo-Atenol; Novo-Pindol; Novo-Timol; Novometoprol; Novopranol; Nu-Metop; Sectral; Slow-Trasicor; Sotacor; Syn-Nadolol; Syn-Pindolol; Tenormin; Toprol-XL; Trandate; Trasicor; Viskin; Zebeta; pms Propranolol

Category: Antiadrenergic [Acebutolol; Atenolol; Betaxolol; Carteolol; Labetalol; Metoprolol; Nadolol; Oxprenolol; Penbutolol; Pindolol; Propranolol; Sotalol; Timolol]; Antianginal [Acebutolol; Atenolol; Carteolol; Labetalol; Metoprolol; Nadolol; Oxprenolol; Penbutolol; Pindolol; Propranolol; Sotalol; Timolol]; Antiarrhythmic [Acebutolol; Atenolol; Metoprolol; Nadolol; Oxprenolol; Propranolol; Sotalol; Timolol]; Antihypertensive [Acebutolol; Atenolol; Betaxolol; Bisoprolol; Carteolol; Labetalol; Metoprolol; Nadolol; Oxprenolol; Penbutolol; Pindolol; Propranolol; Sotalol; Timolol]; Hypertrophic cardiomyopathy therapy adjunct [Acebutolol; Atenolol; Metoprolol; Nadolol; Oxprenolol; Pindolol; Propranolol; Sotalol; Timolol]; Myocardial infarction prophylactic and therapy [Acebutolol; Atenolol; Metoprolol; Nadolol; Oxprenolol; Propranolol; Sotalol; Timolol]; Neuroleptic-induced akathisia therapy [Betaxolol; Metoprolol; Nadolol; Propranolol]; Pheochromocytoma therapy adjunct [Acebutolol; Atenolol; Labetalol; Metoprolol; Nadolol; Oxprenolol; Propranolol; Sotalol; Timolol]; Vascular headache prophylactic [Atenolol; Metoprolol; Nadolol; Propranolol; Timolol]; Antitremor agent [Acebutolol; Atenolol; Metoprolol; Nadolol; Oxprenolol; Pindolol; Propranolol; Sotalol; Timolol]; Antianxiety therapy adjunct [Acebutolol; Metoprolol; Oxprenolol; Propranolol; Sotalol; Timolol]; Thyrotoxicosis therapy adjunct [Acebutolol; Atenolol; Metoprolol; Nadolol; Oxprenolol; Propranolol; Sotalol; Timolol]; Antiglaucoma agent [Timolol].

Conventional indications: Angina pectoris, chronic (treatment) [Acebutolol, atenolol, carteolol, labetalol, metoprolol, nadolol, oxprenolol, penbutolol, pindolol, propranolol, sotalol, and timolol]; Arrhythmias, cardiac (prophylaxis and treatment) [Propranolol, Acebutolol, atenolol, metoprolol, nadolol, oxprenolol, sotalol, and timolol]; Hypertension (treatment) [Acebutolol, atenolol, betaxolol, bisoprolol, carteolol, labetalol, metoprolol, nadolol, oxprenolol, penbutolol, pindolol, propranolol, sotalol, and timolol]; Cardiomyopathy, hypertrophic (treatment) [Acebutolol, atenolol, metoprolol, nadolol, oxprenolol, pindolol, propranolol, sotalol, and timolol]; Myocardial infarction (treatment and prophylaxis) [Acebutolol, atenolol, metoprolol, nadolol, oxprenolol, propranolol, sotalol, and timolol]; Pheochromocytoma (treatment adjunct) [Propranolol, Acebutolol, atenolol, labetalol (with caution), metoprolol, nadolol, oxprenolol, sotalol, and timolol]; Headache, vascular (prophylaxis) [Propranolol and timolol, Atenolol, metoprolol, and nadolol]; Tremors (treatment) [Propranolol, Acebutolol, atenolol, metoprolol, nadolol, oxprenolol, pindolol, sotalol, and timolol]; Anxiety (treatment adjunct) [Propranolol, Acebutolol, metoprolol, oxprenolol, sotalol, and timolol]; Thyrotoxicosis (treatment adjunct) [Propranolol, Acebutolol, atenolol, metoprolol, nadolol, oxprenolol, sotalol, and timolol]; Mitral valve prolapse syndrome (treatment) [Acebutolol, atenolol, metoprolol, nadolol, oxprenolol, pindolol, propranolol, sotalol, and timolol]; Hypotension, controlled (induction and maintenance) [Parenteral labetalol]; Glaucoma, open-angle (treatment) [Timolol]; Neuroleptic-induced akathisia (treatment) [Propranolol, betaxolol, metoprolol, and nadolol]; Stable, symptomatic (NYHA Class II or III) heart failure of ischemic, hypertensive, or cardiomyopathic origin (treatment) [Metoprolol].

Primary Actions or Pathogenetic Symptoms

MIND: anxiety; depression, mental; nervousness; catatonia; confusion (especially in the elderly); hallucinations.

VERTIGO: *hypotension, orthostatic* (dizziness or lightheadedness when getting up from a lying or sitting position); dizziness, severe; fainting.

HEAD: *numbness and/or tingling of the scalp* [Labetolol].

EYE: *hypotension*; dry; sore.

NOSE: *congestion* (stuffy nose).

MOUTH: *changes in taste*.

STOMACH: *discomfort; nausea; vomiting*.

ABDOMEN: *hepatotoxicity* (dark urine, yellow eyes or skin) [Acebutolol, Bisoprolol, or Labetalol]; *necrosis, hepatic* [Labetalol].

RECTUM: *constipation; diarrhea*.

BLADDER: *urination, frequent* [Acebutolol, Carteolol].

GENITALIA MALE: *sexual ability, decreased*.

GENITALIA FEMALE: *sexual ability, decreased*.

RESPIRATION: *bronchospasm* (difficulty breathing and/or wheezing); difficulty breathing.

CHEST: *bradycardia, symptomatic* (dizziness); *bronchospasm* (difficulty breathing and/or wheezing); *congestive heart failure* (swelling of ankles, feet, and/or lower legs; shortness of breath); *arrhythmias* (irregular heartbeat); *pain*.

BACK: *pain*.

EXTREMITIES: *circulation, peripheral, reduced* (cold hands and feet) [except Labetalol]; *numbness and/or tingling of fingers or toes* [Labetalol]; *pain, joint*; bluish-colored palms of hands.

NAILS: bluish-colored fingernails.

SLEEP: *drowsiness; trouble in sleeping*.

DREAMS: *nightmares; vivid dreams*.

PERSPIRATION: *sweating, increased* [Metoprolol].

SKIN: *allergic reaction* (skin rash); *eruption, psoriasiform* (red, scaling, or crusted skin); *itching; numbness and/or tingling of skin* [Labetalol]; *photosensitivity* [Metoprolol].

GENERALITIES: *cholinergic-like effect* (antiadrenergic) [Acebutolol; Atenolol; Betaxolol; Carteolol; Labetalol; Metoprolol; Nadolol; Oxprenolol; Penbutolol; Pindolol; Propranolol; Sotalol; Timolol]; *hypotension; tiredness or weakness, unusual; bradycardia, symptomatic* (dizziness); *circulation, peripheral, reduced* (cold hands and feet) [except labetalol]; *death* [Labetalol]; *arrhythmias* (irregular heartbeat); *hypotension, orthostatic* (dizziness or lightheadedness when getting up from a lying or sitting position); *leukopenia* (fever, sore throat); *pain, joint; thrombocytopenia* (unusual bleeding and bruising); seizures.

DIAGNOSTIC TESTS: *leukopenia* (fever, sore throat); *thrombocytopenia* (unusual bleeding and bruising).

Beta-adrenergic Blocking Agents and Thiazide Diuretics (Systemic)

Commercial name(s): *Corzide; Corzide 40/5; Corzide 80/5; Inderide; Inderide LA; Lopressor HCT; Tenoretic; Tenoretic 100; Tenoretic 50; Timolide; Timolide 10-25; Viskazide; Ziac.*

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; depression, mental; nervousness; catatonia; confusion; hallucinations*

VERTIGO: *dizziness; lightheadedness; fainting.*

EYE: *dry; sore.*

NOSE: *congestion* (stuffy nose).

MOUTH: *changes in taste.*

STOMACH: *anorexia* (loss of appetite); *discomfort; nausea; upset, stomach; vomiting.*

ABDOMEN: *cholecystitis; hepatotoxicity* (dark urine; yellow eyes or skin); *pancreatitis* (severe stomach pain with nausea and vomiting).

RECTUM: *constipation; diarrhea.*

GENITALIA MALE: **sexual ability, decreased.**

GENITALIA FEMALE: **sexual ability, decreased.**

RESPIRATION: *bronchospasm* (breathing difficulty and/or wheezing); cyanosis, peripheral (bluish-colored fingernails or palms of hands); difficulty in breathing.

CHEST: *bradycardia* (slow heartbeat - especially less than 50 beats per minute); *bronchospasm* (breathing difficulty and/or wheezing); *congestive heart failure* (swelling of ankles, feet, and/or lower legs; shortness of breath); *arrhythmias* (irregular heartbeat); *pain.*

BACK: *pain.*

EXTREMITIES: *circulation, peripheral, reduced* (cold hands and feet); *numbness or tingling of fingers and toes; gout* (joint pain; lower back or side pain); *pain, joint; cyanosis, peripheral* (bluish-colored fingernails or palms of hands).

SLEEP: **drowsiness, mild; trouble in sleeping.**

DREAMS: *nightmares; vivid dreams.*

SKIN: *photosensitivity* (increased sensitivity of skin to sunlight); *allergic reaction* (skin rash or hives); *eruption, psoriasiform* (red, scaling, or crusted skin); *itching.*

GENERALITIES: **hypotension; alkalosis, hypochloremic; hypokalemia** (dryness of mouth; increased thirst; irregular heartbeat; mood or mental changes; muscle cramps or pain; nausea or vomiting; unusual tiredness or weakness; weak pulse); **hyponatremia** (confusion; convulsions; decreased mentation; fatigue; irritability; muscle cramps); **tiredness or weakness, unusual; bradycardia** (slow heartbeat - especially less than 50 beats per minute); *circulation, peripheral, reduced* (cold hands and feet); *agranulocytosis* (fever or chills; cough or hoarseness); *arrhythmias* (irregular heartbeat); *gout* (joint pain; lower back or side pain); *hyperuricemia; leukopenia* (fever and sore throat); *pain, joint; pancreatitis* (severe stomach pain with nausea and vomiting); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); cyanosis, peripheral (bluish-colored fingernails or palms of hands); hypoglycemia; seizures.

DIAGNOSTIC TESTS: **alkalosis, hypochloremic; hypokalemia; hyponatremia; hyperuricemia; leukopenia; thrombocytopenia; hypoglycemia.**

Beta-carotene (Systemic)

Commercial name(s): *Lumitene; Max-Caro.*

Category: Nutritional supplement (vitamin precursor); Photosensitivity reaction suppressant in erythropoietic protoporphyria; Polymorphous light eruption suppressant.

Conventional indications: Vitamin A deficiency (prophylaxis); Photosensitivity reactions in erythropoietic protoporphyria (prophylaxis and treatment); Polymorphous light eruption (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

EXTREMITIES: *arthralgia* (joint pain).

SKIN: *carotenoderma* (yellowing of palms, hands, or soles of feet, and to a lesser extent the face).

GENERALITIES: *arthralgia* (joint pain); *ecchymoses* (unusual bleeding or bruising).

Betaine (Systemic)

Commercial name(s): *Cystadane.*

Category: Antihomocystinuric.

Conventional indications: Homocystinuria (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: *nausea; upset, gastrointestinal* (stomach upset).

ABDOMEN: *upset, gastrointestinal* (stomach upset).

RECTUM: *diarrhea.*

PERSPIRATION: *odor, body.*

GENERALITIES: *odor, body.*

Bethanechol (Systemic)

Commercial name(s): *Duvoid; Urabeth; Urecholine.*

Category: Cholinergic.

Conventional indications: Urinary retention (treatment); Atony, postoperative, gastric (treatment); Megacolon, congenital (treatment); Reflux, gastroesophageal (treatment) [Oral bethanechol].

Primary Actions or Pathogenetic Symptoms

MIND: *jitters* (with high doses); *nervousness* (with high doses).

VERTIGO: *hypotension, orthostatic* (dizziness or lightheadedness; feeling faint) (with high doses).

HEAD: *headache* (with high doses).

VISION: *blurred vision* (more frequent with subcutaneous injection); *change in near or distance vision* (more frequent with subcutaneous injection).

MOUTH: *salivation, increased* (with high doses).

STOMACH: *belching* (more frequent with subcutaneous injection); *discomfort* (with high doses); *nausea or vomiting* (with high doses); *pain* (with high doses).

RECTUM: *diarrhea* (more frequent with subcutaneous injection); *diarrhea, bloody*.

BLADDER: *urge to urinate, frequent* (more frequent with subcutaneous injection).

RESPIRATION: *shortness of breath* (more frequent with subcutaneous injection); *wheezing* (more frequent with subcutaneous injection).

CHEST: *cardiac arrest, sudden; tightness* (more frequent with subcutaneous injection).

SLEEP: *sleeplessness* (with high doses).

PERSPIRATION: *sweating, increased* (with high doses).

SKIN: *redness or flushing of skin or feeling of warmth* (with high doses).

GENERALITIES: *CNS stimulation* (sleeplessness, nervousness, or jitters) (with high doses); *hypotension, orthostatic* (dizziness or lightheadedness; feeling faint) (with high doses); *parasympathetic stimulation* (headache; increased salivation or sweating; nausea or vomiting; redness or flushing of skin or feeling of warmth; stomach discomfort or pain) (with high doses); *redness or flushing of skin or feeling of warmth* (with high doses); *seizures* (with high doses); *circulatory collapse; hypersensitivity; hypotension; shock*.

Bevacizumab (Systemic)

Commercial name(s): *Avastin*.

Category: Antineoplastic; Monoclonal antibody; Vascular endothelial growth factor (VEGF) inhibitor.

Conventional indications: Carcinoma, colorectal (treatment); Non-squamous non small cell lung cancer, advanced/metastatic, first-line treatment, in combination with paclitaxel and carboplatin.

Primary Actions or Pathogenetic Symptoms

MIND: *confusion*.

VERTIGO: *dizziness; gait, abnormal* (change in walking and balance; clumsiness or unsteadiness); *syncope* (fainting).

HEAD: *alopecia* (hair loss; thinning of hair); *headache*.

EYE: *lacrimation, excess* (excess flow of tears).

NOSE: *epistaxis* (bloody nose).

MOUTH: *bleeding gums; dry; stomatitis* (swelling or inflammation of the mouth); *taste disorder* (change in taste; bad, unusual or unpleasant (after) taste).

STOMACH: *anorexia* (loss of appetite; weight loss); *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); *vomiting*.

ABDOMEN: *bilirubinemia* (yellow skin; unusual tiredness or weakness); *colitis* (stomach cramps; tenderness; pain; watery or bloody diarrhea; fever); *flatulence; hemorrhage*,

gastrointestinal (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); **pain, abdominal**; thrombosis, intra-abdominal (stomach tenderness, pain, swelling, or warmth); necrosis, intestinal (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); obstruction, intestinal (abdominal pain, severe constipation nausea vomiting); occlusion, venous, mesenteric (abdominal pain, usually after eating a meal; constipation; diarrhea; nausea; vomiting); ulceration, anastomotic (abdominal or stomach pain; cramping or burning; black, tarry stools; constipation; diarrhea; vomiting of blood or material that looks like coffee grounds; nausea; heartburn; indigestion).

RECTUM: diarrhea; hemorrhage, gastrointestinal (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); constipation (difficulty having a bowel movement [stool]).

BLADDER: urinary frequency/urgency.

KIDNEYS: stricture, ureteral (difficult or painful urination; frequent urge to urinate).

URINE: proteinuria (cloudy urine).

GENITALIA FEMALE: hemorrhage, vaginal (heavy nonmenstrual vaginal bleeding).

LARYNX AND TRACHEA: voice alteration.

RESPIRATION: dyspnea (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); **infection, upper respiratory** (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

CHEST: congestive heart failure (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing).

EXTREMITIES: myalgia (muscle pain); **thrombosis, deep vein** (pain, redness, or swelling in arm or leg).

NAILS: nail disorder (discoloration of fingernails or toenails).

SKIN: alopecia (hair loss; thinning of hair); **dermatitis, exfoliative** (cracks in the skin; loss of heat from the body; red, swollen skin, scaly skin); **discoloration; dry; healing, wound, complications; ulcer** (sores on the skin).

GENERALITIES: alopecia (hair loss; thinning of hair); **asthenia** (lack or loss of strength); **bilirubinemia** (yellow skin; unusual tiredness or weakness); **healing, wound, complications; hypertension** (high blood pressure); **hypokalemia** (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); **hypotension** (low blood pressure); **infection, upper respiratory** (ear congestion; nasal; congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **leukopenia** (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); **myalgia** (muscle pain); **neutropenia; pain; thrombocytopenia** (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); **thrombosis, deep vein** (pain, redness, or

swelling in arm or leg); **weight loss**; *hyponatremia* (coma; confusion; convulsions; decreased urine output; dizziness; fast or irregular heartbeat; headache; increased thirst; muscle pain or cramps; nausea or vomiting; shortness of breath; swelling of face, ankles, or hands; unusual tiredness or weakness); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *polyserositis* (abdominal pain; chest pain; fever; shortness of breath).

DIAGNOSTIC TESTS: **bilirubinemia**; **hypokalemia**; **leukopenia**; **neutropenia**; **proteinuria**; **thrombocytopenia**; *hyponatremia*; *pancytopenia*.

Bexarotene (Systemic)

Commercial name(s): *Targretin*.

Category: Antineoplastic.

Conventional indications: Lymphoma, cutaneous T-cell (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: **alopecia** (hair loss); **headache**.

EXTERNAL THROAT: **hypothyroidism** (coldness; dry, puffy skin; unusual tiredness; weight gain).

STOMACH: **anorexia** (loss of appetite); **nausea**; **vomiting**.

ABDOMEN: **pain, abdominal**; *bilirubinemia* (yellow eyes or skin); *pancreatitis* (severe stomach pain with nausea or vomiting).

RECTUM: **diarrhea**.

RESPIRATION: *pneumonia* (fever or chills; cough; shortness of breath).

CHEST: *pneumonia* (fever or chills; cough; shortness of breath).

BACK: **pain**.

EXTREMITIES: **edema, peripheral** (swelling of the arms, feet, hands, or legs)

SLEEP: **insomnia** (trouble in sleeping).

CHILL: **chills**.

FEVER: fever.

SKIN: **alopecia** (hair loss); **dermatitis, exfoliative** (skin rash or other skin and mucous membrane lesions); **dry**; **rash**.

GENERALITIES: **alopecia** (hair loss); **anemia, hypochromic** (unusual tiredness or weakness); **asthenia** (loss of strength or energy; tiredness or weakness); **edema, peripheral** (swelling of the arms, feet, hands, or legs); **flu-like syndrome** (chills and fever; diarrhea; cough; general feeling of discomfort or illness); **hypothyroidism** (coldness; dry, puffy skin; unusual tiredness; weight gain); **hypercholesterolemia** (increase in cholesterol levels); **hyperlipidemia** (increase in lipid levels); **lactic dehydrogenase, increased**; **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *bilirubinemia* (yellow eyes or skin); *pancreatitis* (severe stomach pain with nausea or vomiting).

DIAGNOSTIC TESTS: **anemia, hypochromic**; **hypercholesterolemia**; **hyperlipidemia**; **lactic dehydrogenase, increased**; **leukopenia**; *bilirubinemia*; *hepatic enzymes, elevated*.

Bexarotene (Topical)

Commercial name(s): *Targretin*.

Category: Antineoplastic (topical).

Conventional indications: Lymphoma, cutaneous T-cell (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

FACE: edema, peripheral (bloating or swelling of face).

THROAT: pharyngitis (sore throat).

COUGH: cough increased.

EXTREMITIES: edema, peripheral (bloating or swelling of hands, lower legs, and/or feet).

PERSPIRATION: sweating.

SKIN: dermatitis, contact (blistering, burning, crusting, dryness, flaking of skin, itching, scaling, severe redness, soreness, swelling of skin); dermatitis, exfoliative (blisters on skin; chills; fever; general feeling of discomfort or illness; red, thickened, or scaly skin; swollen and/or painful glands; unusual bruising); pruritus (itching skin; itching of lesion); rash; rash, maculopapular (skin rash with lesions); skin disorder (skin inflammations; scratch; sticky or tacky sensation).

GENERALITIES: asthenia (lack or loss of strength); edema (decreased urination: rapid weight gain, bloating); edema, peripheral (bloating or swelling of face, hands, lower legs, and/or feet); hyperlipemia (increase in lipid levels); infection (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); leukopenia (sore throat; fever); lymphadenopathy (swollen, painful, or tender lymph glands in neck, armpit, or groin); pain; paresthesia (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings).

DIAGNOSTIC TESTS: hyperlipemia; leukopenia.

Bimatoprost (Ophthalmic)

Commercial name(s): *Lumigan*.

Category: Antiglaucoma agent (ophthalmic); Antihypertensive, ocular.

Conventional indications: Glaucoma, open-angle (treatment); Hypertension, ocular (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache; hirsutism (increase in hair growth).

EYE: hypotension; growth of eyelashes; hyperemia, conjunctival (redness of the white part of eyes or inside of eyelids); pruritus, ocular (itching eye); blepharitis (redness, swelling, and/or itching of eyelid); burning, ocular (burning sensation in eyes); cataract (blindness; blurred vision; decreased vision); darkening of eyelash (darker eyelashes); erythema, eyelid (redness of eyelid); irritation, ocular (red, sore eyes); keratitis, punctate,

superficial (feeling of something in eye; sensitivity of eyes to light); pain; sensation, foreign body (feeling of having something in the eye); asthenopia (eye strain); conjunctivitis, allergic (itching, redness, swelling, or other sign of eye or eyelid irritation); discharge; edema, conjunctival (swelling and/or redness of eye and lining of eyelid); edema, macular, including cystoid macular edema; iritis (eye pain, tearing, sensitivity or eye to light, redness of eye, or blurred vision or other change in vision); photophobia (increased sensitivity of eyes to sunlight); pigmentation, iris, increases (eye color changes); tearing.

VISION: visual disturbance (blurred vision or other change in vision).

FACE: pigmentation of the periocular skin (color changes in skin around eyes).

SKIN: hirsutism (increase in hair growth).

GENERALITIES: asthenia (lack or loss of strength); hirsutism (increase in hair growth); infection (fever or chills).

Biotin (Systemic)

Other commonly used names: Vitamin H, Coenzyme R, Vitamin Bw.

Commercial name(s): *Appearex; Meribin; Nail-ex.*

Category: Nutritional supplement (vitamin).

Conventional indications: Biotin deficiency (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

No side effects have been reported with intakes of biotin as high as 10 mg daily.

Bismuth Subsalicylate (Oral-Local)

Commercial name(s): *Bismatrol; Bismatrol Extra Strength; Bismed; Extra Strength Kaopectate; Kaopectate; PMS-Bismuth Subsalicylate; Pepto-Bismol; Pepto-Bismol Easy-to-Swallow Caplets; Pepto-Bismol Maximum Strength.*

Category: Antidiarrheal (antisecretory); Antacid; Antiulcer agent.

Conventional indications: Diarrhea (treatment); Gastric distress (treatment); Traveler's diarrhea (prophylaxis); Ulcer, duodenal, *Helicobacter pylori*-associated (treatment adjunct); Gastritis, *Helicobacter pylori*-associated (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: confusion.

VERTIGO: dizziness or lightheadedness.

HEAD: headache, severe or continuing.

VISION: vision problems.

HEARING: loss of hearing; ringing or buzzing in ears, continuing.

MOUTH: **discoloration produced by bismuth** (darkening of tongue).

STOMACH: **reduction of gastric acid** (hypochloremic alkalosis); nausea, severe or continuing; pain, severe or continuing; thirst, increased; vomiting, severe or continuing.

RECTUM: **constipation**; diarrhea, severe or continuing.

STOOL: discoloration produced by bismuth (grayish black stools).

RESPIRATION: breathing, fast or deep.

EXTREMITIES: flapping movements of the hands, uncontrollable (especially in elderly patients).

SLEEP: drowsiness, severe.

PERSPIRATION: sweating, increased.

GENERALITIES: encephalopathy, bismuth (anxiety; confusion; difficulty in speaking or slurred speech; severe and/or continuing headache; mental depression; muscle spasms, especially of face, neck, and back; muscle weakness; trembling; uncontrolled body movements); salicylism, symptoms of (any loss of hearing; confusion; severe or continuing diarrhea; dizziness or lightheadedness; severe drowsiness; fast or deep breathing; severe or continuing headache; increased sweating; increased thirst; severe or continuing nausea or vomiting; continuing ringing or buzzing in ears; severe or continuing stomach pain; uncontrollable flapping movements of the hands, especially in elderly patients; vision problems).

Bismuth Subsalicylate, Metronidazole, and Tetracycline - For H. pylori (Systemic)

Commercial name(s): *Helidac*.

Category: Antiulcer agents.

Conventional indications: Duodenal ulcer, active (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness*; confusion [Bismuth subsalicylate]; lethargy (unusual tiredness) [Bismuth subsalicylate].

VERTIGO: *dizziness*; *syncope* (fainting).

HEARING: tinnitus (continuing ringing or buzzing in ears) [Bismuth subsalicylate].

MOUTH: *discoloration produced by bismuth* (darkening of tongue); *glossitis* (irritation of tongue); *stomatitis* (irritation of mouth).

THROAT: *dysphagia* (trouble in swallowing).

STOMACH: **nausea**; *anorexia* (loss of appetite); *vomiting*; *hemorrhage*, *gastrointestinal* (black, tarry stools; bloody vomit).

ABDOMEN: **pain**, **abdominal**; *hemorrhage*, *gastrointestinal* (black, tarry stools; bloody vomit).

RECTUM: **diarrhea**; **melena** (bloody or black, tarry stools); *constipation*; *discomfort, anal* (burning or itching around anus); *hemorrhage*, *gastrointestinal* (black, tarry stools; bloody vomit).

STOOL: **melena** (bloody or black, tarry stools); *discoloration produced by bismuth* (grayish-black stools).

RESPIRATION: hyperpnea (fast or deep breathing) [Bismuth subsalicylate].

CHEST: *myocardial infarction* (heart attack); tachycardia (fast heartbeat) [Bismuth Subsalicylate].

EXTREMITIES: *arthritis, rheumatoid* (joint pain and swelling); ataxia (clumsiness or unsteadiness) [Metronidazole]; neuropathy, peripheral (pain, numbness, or tingling in arms, legs, hands, or feet) [Metronidazole].

SLEEP: *insomnia* (trouble in sleeping).

FEVER: hyperpyrexia (fever) [Bismuth Subsalicylate].

SKIN: *photosensitivity reaction* (sensitivity of skin to sunlight); *skin rash*

GENERALITIES: *asthenia* (unusual tiredness or weakness); *malaise* (general feeling of discomfort or illness); *paresthesia* (burning, prickling, or tingling sensations); *arthritis, rheumatoid* (joint pain and swelling); *hypertension* (high blood pressure); *myocardial infarction* (heart attack); *pain; seizures*; ataxia (clumsiness or unsteadiness) [Metronidazole]; neuropathy, peripheral (pain, numbness, or tingling in arms, legs, hands, or feet) [Metronidazole].

Bivalirudin (Systemic)

Commercial name(s): *Angiomax*.

Category: Anticoagulant.

Conventional indications: Angina pectoris, unstable (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; nervousness; confusion*.

HEAD: *headache; ischemia, cerebral* (rebound effect?).

FACE: *paralysis, facial*.

STOMACH: *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); *nausea; vomiting*.

ABDOMEN: *pain, abdominal and/or pelvic*.

BLADDER: *retention, urinary* (painful or difficult urination); *oliguria*.

KIDNEYS: *renal failure*.

CHEST: *bradycardia* (slow or irregular heartbeat; light-headedness; dizziness or fainting; unusual tiredness); *edema, lung; fibrillation, ventricular*.

BACK: *pain*.

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep).

FEVER: *fever*.

GENERALITIES: *bleeding; bradycardia* (slow or irregular heartbeat; light-headedness; dizziness or fainting; unusual tiredness); **hypertension** (blurred vision; dizziness severe or continuing; dull nervousness; headache; pounding in the ears; slow or fast heartbeat); **hypotension** (blurred vision; confusion; dizziness; faintness; light-headedness when getting up from a lying or sitting position; sudden sweating; unusual tiredness or weakness); **pain; pain, injection site; anomaly, vascular; infection; sepsis**.

Secondary Actions or Rebound Effects: *thrombus* (pains in chest, groin, or legs, especially calves of legs; severe headaches of sudden onset; sudden loss of coordination; sudden onset of shortness of breath for no apparent reason; sudden onset of slurred speech; sudden vision changes).

Bleomycin (Systemic)

Commercial name(s): *Blenoxane*.

Category: Antineoplastic.

Conventional indications: Carcinoma, head and neck (treatment); Carcinoma, laryngeal (treatment); Carcinoma, paralaryngeal (treatment); Carcinoma, esophageal (treatment); Carcinoma, thyroid (treatment); Carcinoma, cervical (treatment); Carcinoma, penile (treatment); Carcinoma, skin (treatment); Carcinoma, vulvar (treatment); Carcinoma, testicular (treatment); Lymphomas, Hodgkin's (treatment); Lymphomas, non-Hodgkin's (treatment); Kaposi's sarcoma, acquired immunodeficiency syndrome (AIDS)–associated (treatment); Osteosarcoma (treatment); Malignant effusions, peritoneal (treatment); Malignant effusions, pericardial (treatment); Malignant effusions, pleural (treatment); Melanoma, malignant (treatment); Tumors, germ cell, ovarian (treatment); Tumors, trophoblastic, gestational (treatment); Mycosis fungoides (treatment); Verruca vulgaris (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *hair, loss of; arteritis, cerebral; cerebrovascular accident*.

MOUTH: **stomatitis, mild** (sores in mouth and on lips) (due to mucocutaneous toxicity).

STOMACH: **appetite, loss of; vomiting**.

ABDOMEN: *toxicity, hepatic* (seen as changes in hepatic function tests).

KIDNEYS: *failure, renal; toxicity, renal* (seen as changes in renal function tests).

RESPIRATION: *rales, fine*.

CHEST: **fibrosis, pulmonary** (cough; shortness of breath); **pneumonitis; cardiorespiratory collapse; diffusion capacity, decrease in; infarction, myocardial; pleuropericarditis** (sudden severe chest pain); *pulmonary toxicity* (cough; shortness of breath) (up to 1 month after bleomycin is discontinued) (rebound effect?); *rales, fine*.

EXTREMITIES: *Raynaud's phenomenon*.

NAILS: *loss, nail*.

CHILL: **chills**.

FEVER: **fever**.

PERSPIRATION: *sweating*.

SKIN: **toxicity, mucocutaneous** (darkening or thickening of skin; itching of skin; skin rash or colored bumps on fingertips, elbows, or palms; skin redness or tenderness; dark stripes on skin; swelling of fingers; less frequently, changes in fingernails or toenails); *hair, loss of; blackening and eschar of injection site; urticaria*.

GENERALITIES: **burning at injection site** (with intralesional use); **pain at injection site** (with intralesional use); **toxicity, mucocutaneous** (darkening or thickening of skin; itching of skin; skin rash or colored bumps on fingertips, elbows, or palms; skin redness or tenderness; dark stripes on skin; swelling of fingers; less frequently, changes in fingernails or toenails); *hair, loss of; idiosyncratic reaction* (confusion; faintness; fever and chills; wheezing); *infarction, myocardial; weight loss; blackening and eschar of injection site; cardiorespiratory collapse; death* (due to pulmonary fibrosis or pulmonary toxicity);

dehydration; hypotension; microangiopathy, thrombotic (sudden weakness in arms or legs; sudden, severe chest pain).

Bortezomib (Systemic)

Commercial name(s): *Velcade*.

Category: Antineoplastic.

Conventional indications: Multiple myeloma (treatment); Mantle cell lymphoma, second line therapy.

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety** (fear, nervousness); *encephalopathy* (agitation; back pain; blurred vision; coma; confusion; dizziness; drowsiness; fever; hallucinations; headache; irritability; mood or mental changes; seizures; stiff neck; unusual tiredness or weakness; vomiting).

VERTIGO: **dizziness**.

HEAD: **headache**; *encephalopathy* (agitation; back pain; blurred vision; coma; confusion; dizziness; drowsiness; fever; hallucinations; headache; irritability; mood or mental changes; seizures; stiff neck; unusual tiredness or weakness; vomiting).

VISION: **blurred vision**.

HEARING: *deafness bilateral*.

MOUTH: **dysgeusia** (loss of taste; change in taste).

STOMACH: **appetite decreased**; **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion, stomach discomfort, upset or pain); **nausea**; **pain, abdominal** (stomach pain); **vomiting**.

ABDOMEN: **herpes zoster** (painful blisters on trunk of body); **pain, abdominal** (stomach pain); *colitis, ischemic* (abdominal pain and tenderness; bloody stools; rectal bleeding); *pancreatitis, acute* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: **constipation** (difficulty having a bowel movement (stool)); **diarrhea**.

RESPIRATION: **dyspnea** (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); **infection, upper respiratory tract** (ear congestion; nasal congestion; chills; cough; fever; sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **pneumonia** (chest pain, cough, fever or chills, sneezing, shortness of breath, sore throat, troubled breathing, tightness in chest, wheezing).

COUGH: **cough**.

CHEST: **herpes zoster** (painful blisters on trunk of body); **pneumonia** (chest pain, cough, fever or chills, sneezing, shortness of breath, sore throat, troubled breathing, tightness in chest, wheezing); *block, atrioventricular, complete* (chest pain; dizziness; fainting; pounding, slow heartbeat; troubled breathing; unusual tiredness or weakness); *tamponade, cardiac* (shortness of breath).

BACK: **herpes zoster** (painful blisters on trunk of body); **pain**.

EXTREMITIES: **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **cramps, muscle; myalgia** (joint pain, swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **neuropathy, peripheral** (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness); **pain, bone; pain in limb.**

SLEEP: **insomnia** (sleeplessness; trouble sleeping; unable to sleep).

CHILL: **rigors** (feeling unusually cold; shivering).

FEVER: **pyrexia** (fever).

SKIN: **herpes zoster** (painful blisters on trunk of body); **pruritus** (itching skin); **rash.**

GENERALITIES: **anemia** (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **cramps, muscle; dehydration** (confusion; decreased urination; dizziness; dry mouth; fainting; increase in heart rate; lightheadedness; rapid breathing; sunken eyes; thirst; unusual tiredness or weakness; wrinkled skin); **dysesthesia** (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); **edema** (swelling); **fatigue; hypotension** (blurred vision, confusion, dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); **infection, upper respiratory tract** (ear congestion; nasal congestion; chills; cough; fever; sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **malaise; myalgia** (joint pain, swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **neutropenia** (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); **pain, bone; paresthesias** (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); **neuropathy, peripheral** (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness); **thrombocytopenia** (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); **weakness; coagulation, intravascular, disseminated (DIVC)** (blood in stools; blood in urine; bruising; confusion; coughing or vomiting blood; persistent bleeding or oozing from puncture sites, mouth, or nose; rash; shortness of breath); **dysautonomia** (difficult or painful urination; dizziness or lightheadedness, especially when getting up from a lying or sitting position; fast heartbeat); **encephalopathy** (agitation; back pain; blurred vision; coma; confusion; dizziness; drowsiness; fever; hallucinations; headache; irritability; mood or mental changes; seizures; stiff neck; unusual tiredness or weakness; vomiting); **hepatitis** (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); **pancreatitis, acute** (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

DIAGNOSTIC TESTS: **anemia; neutropenia; thrombocytopenia.**

Bosentan (Systemic)

Commercial name(s): *Tracleer*.

Category: Antihypertensive (pulmonary); Endothelin receptor antagonist.

Conventional indications: Pulmonary arterial hypertension; Pulmonary hypertension secondary to scleroderma.

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

NOSE: **nasopharyngitis** (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache).

FACE: **flushing** (feeling of warmth; redness of the face).

THROAT: **nasopharyngitis** (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache).

EXTERNAL THROAT: **flushing** (feeling of warmth; redness of the neck).

STOMACH: *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); nausea; vomiting.

ABDOMEN: **dysfunction, hepatic** (dark urine; light-colored stools; loss of appetite; nausea and vomiting; unusual tiredness; yellow eyes or skin; fever with or without chills; stomach pain); *cirrhosis, hepatic* (yellow eyes or skin).

KIDNEYS: *retention, fluid* (decrease in amount of urine; noisy, rattling breathing; shortness of breath; swelling of fingers, hands, feet, or lower legs; troubled breathing at rest; weight gain).

CHEST: *hypotension, pulmonary; palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); *edema, pulmonary* (chest pain; difficult, fast, noisy breathing, sometimes with wheezing; blue lips and fingernails; pale skin; increased sweating; coughing that sometimes produces a pink frothy sputum; shortness of breath; swelling in legs and ankles); *veno-occlusive disease, pulmonary (PVOD)* (shortness of breath, fatigue on exertion, fainting, coughing up blood); heart rate, increases.

EXTREMITIES: **edema, lower limb** (swelling of the legs); **flushing** (feeling of warmth; redness of the arms).

SKIN: *pruritus* (itching skin); *rash*.

GENERALITIES: *vasodilatation, systemic and pulmonary; hypotension* (blurred vision; confusion; dizziness; faintness or lightheadedness when getting up from a lying or sitting position; sudden sweating; unusual tiredness or weakness); **flushing** (feeling of warmth; redness of the face, neck, arms, and occasionally upper chest); **palpitations** (fast, irregular, pounding, or racing heartbeat or pulse); *edema* (swelling); *fatigue* (unusual tiredness or weakness); *hypersensitivity* (fast heartbeat; fever; hives; itching; irritation; hoarseness; joint pain, stiffness or swelling; rash; redness of skin; shortness of breath; swelling of eyelids, face, lips, hands, or feet; tightness in chest; troubled breathing or swallowing; wheezing); *retention, fluid* (decrease in amount of urine; noisy, rattling breathing; shortness of breath; swelling of fingers, hands, feet, or lower legs; troubled breathing at rest; weight gain); heart rate, increases.

Botulinum Toxin Type A (Parenteral-Local)

Commercial name(s): *Botox*.

Category: Neuromuscular blocking agent.

Conventional indications: Blepharospasm (treatment); Strabismus (treatment); Hyperhidrosis (treatment); Spasmodic torticollis (cervical dystonia) (treatment); Hemifacial spasm (treatment); Facial spasm (treatment); Spasmodic dysphonia (treatment); Dystonia, focal hand (treatment); Facial wrinkles, hyperfunctional (treatment); Frey's syndrome (treatment); Hyperhidrosis (treatment); Spasticity (treatment); Spasticity, in cerebral palsy (adjunctive treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety** (fear; nervousness); disorientation, past-pointing or spatial (difficulty finding the location of objects).

HEAD: **headache**.

EYE: **deviation, vertical** (eye pointing upward or downward instead of straight ahead); **ecchymosis** (blue or purplish bruise on eyelid); **irritation**; **keratoconjunctivitis sicca** (dryness of the eye); **lagophthalmos** (inability to close the eyelid completely); **photophobia** (sensitivity of the eye to light); **ptosis** (drooping of the upper eyelid); **watering of the eye**; blinking, decreased; ectropion (turning outward of the edge of the eyelid); entropion (turning inward of the edge of the eyelid); keratitis (irritation of the cornea [colored portion] of the eye); swelling of the eyelid skin (following injection into the eyelid; may last several days); *Adie's pupil* (pupillary change consistent with ciliary ganglion damage) (injection procedure for the treatment of strabismus); *exposure, corneal*; *epithelial defect, persistent*; *hemorrhage, vitreous* (injection procedure for the treatment of strabismus); *perforations, scleral* (injection procedure for the treatment of strabismus); *ulceration, corneal*.

VISION: diplopia (double vision).

THROAT: **dysphagia** (difficulty swallowing); **pharyngitis** (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

EXTERNAL THROAT: **pain, neck**.

RESPIRATION: **infection, upper respiratory** (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

CHEST: *cardiac collapse*.

BACK: **pain**.

EXTREMITIES: *paralysis* (neuromuscular block).

FEVER: **fever**.

PERSPIRATION: **sweating, non-axillary** (sweating, not from armpits).

SKIN: **pruritus** (itching skin); *skin rash, diffuse*.

GENERALITIES: *paralysis* (neuromuscular block); **flu syndrome** (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **infection, upper respiratory** (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore

throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **hemorrhage, injection site** (heavy bleeding from place where shot was given); **pain, injection site**.

Botulinum Toxin Type B (Parenteral-Local)

Commercial name(s): *Myobloc*.

Category: Neuromuscular blocking agent.

Conventional indications: Cervical dystonia (treatment); Spasticity (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

MOUTH: dry.

THROAT: *dysphagia* (difficulty swallowing).

EXTERNAL THROAT: **dystonia, cervical; pain, neck; torticollis** (abnormal head position).

STOMACH: **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); **nausea**.

RESPIRATION: *pneumonia, aspiration*.

COUGH: cough.

CHEST: *pneumonia, aspiration*.

BACK: pain.

EXTREMITIES: *paralysis* (neuromuscular block); **arthralgia** (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); **myasthenia** (loss of strength or energy; muscle pain or weakness).

GENERALITIES: *paralysis* (neuromuscular block); **arthralgia** (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); **asthenia** (lack or loss of strength); **flu syndrome** (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **myasthenia** (loss of strength or energy; muscle pain or weakness); **pain; pain, injection site; death** (due to aspiration pneumonia); *infection*.

Bretylum (Systemic)

Commercial name(s): *Bretylate; Bretylol*.

Category: Antiarrhythmic.

Conventional indications: Arrhythmias, ventricular (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *hypotension, postural and/or supine* (dizziness or lightheadedness when getting up from a lying or sitting position; sudden fainting).

STOMACH: nausea; vomiting.

KIDNEYS: *impairment, renal function.*

RESPIRATION: *depression, respiratory.*

CHEST: *angina (chest pain); bradycardia (slow heartbeat); feeling of pressure.*

EXTREMITIES: *neuromuscular block.*

FEVER: *hyperthermia.*

GENERALITIES: *bradycardia (slow heartbeat); hypertension, transient; hypotension; hypotension, postural and/ or supine (dizziness or lightheadedness when getting up from a lying or sitting position; sudden fainting); neuromuscular block.*

Secondary Actions or Rebound Effects: *arrhythmias, increase in frequency of.*

Brimonidine (Ophthalmic)

Commercial name(s): *Alphagan P.*

Category: *Antiglaucoma agent (ophthalmic); Antihypertensive, ocular.*

Conventional indications: *Glaucoma, open-angle (treatment); Hypertension, ocular (treatment).*

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; depression, mental.*

VERTIGO: *dizziness; syncope (fainting).*

HEAD: *headache.*

EYE: *hypotension; allergic reaction (redness of eye or inner lining of eyelid; swelling of eyelid; itching; tearing); burning; follicles, conjunctival; hyperemia, ocular (redness of eye); stinging; tearing; blanching, conjunctival (paleness of eye or inner lining of eyelid); blepharitis (redness, swelling, and/or itching of eyelid); blepharoconjunctivitis (drainage from the eye; redness, swelling, and/or itching of eye and eyelid); cataract (blindness; blurred vision; decreased vision); crusting on eyelid or corner of eye; detachment, vitreous (seeing flashes or sparks of light; seeing floating spots before the eyes or a veil or curtain appearing across part of vision); discharge, conjunctival (oozing in eye); disorder, lid; disorder, vitreous (change in vision; seeing floating spots before the eyes; looking through water); dryness; edema of conjunctiva or eyelid (swelling of eye or eyelid); epiphora (watery eye); erosion, corneal; erythema, eyelid (redness of eyelid); floaters, vitreous (seeing floating dark spots or material before eyes); hemorrhage, conjunctival (bloody eye); irritation (red, sore eyes); keratitis (eye irritation, redness, or pain); keratopathy, punctate, superficial (blurred vision or other change in vision); pain; photophobia (increased sensitivity of eye to light); sensation, foreign body (feeling of something in the eye); staining, corneal (discoloration of white part of eye); iritis (sensitivity to light; tearing; throbbing pain); keratoconjunctivitis sicca (dryness of the eye); miosis (constricted, pinpoint, or small pupils [black part of eye]); pruritus, eyelid (itchy eyelid).*

VISION: *acuity, worsened (decreased vision); blurred vision or other change in vision; visual field defect (blurred vision; decrease or change in vision).*

NOSE: rhinitis (stuffy nose; runny nose; sneezing); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

MOUTH: dryness; taste changes.

THROAT: pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: disorder, gastrointestinal (diarrhea; loss of appetite; nausea or vomiting; stomach pain, fullness, or discomfort; indigestion; passing of gas); dyspepsia (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); nausea; vomiting.

ABDOMEN: disorder, gastrointestinal (diarrhea; loss of appetite; nausea or vomiting; stomach pain, fullness, or discomfort; indigestion; passing of gas).

RESPIRATION: bronchitis (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); dyspnea (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); apnea (bluish lips or skin; not breathing).

COUGH: cough.

CHEST: bronchitis (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); heartbeat, pounding; bradycardia (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); tachycardia (fast, pounding, or irregular heartbeat or pulse).

EXTREMITIES: pain, muscle; weakness, muscle; hypotonia (in infants).

SLEEP: drowsiness; trouble in sleeping.

FEVER: hypothermia (in infants).

SKIN: rash; erythema (flushing, redness of skin; unusually warm skin).

GENERALITIES: tiredness; blood pressure, increased (rebound effect?); fatigue (unusual tiredness or weakness); flu syndrome (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); heartbeat, pounding; hypercholesterolemia (large amount of cholesterol in the blood); hypotension (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); pain, muscle; weakness, muscle; bradycardia (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); hypothermia (in infants); hypotonia (in infants); tachycardia (fast, pounding, or irregular heartbeat or pulse); vasodilation (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or light-headedness; sweating).

DIAGNOSTIC TESTS: hypercholesterolemia.

Brinzolamide (Ophthalmic)

Commercial name(s): *Azopt*.

Category: Antiglaucoma agent (ophthalmic).

Conventional indications: Glaucoma, open-angle (treatment); Hypertension, ocular (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache; alopecia* (hair loss).

EYE: *hypotension; blepharitis* (redness or soreness of eyelid); *burning; discharge, ocular* (discharge from the eye); *discomfort; dry; hyperemia* (redness of the eye); *keratitis* (eye redness, irritation, or pain); *pain; sensation, foreign body* (feeling of something in the eye); *stinging; allergic reaction, ocular* (itching, redness, swelling, or other sign of eye or eyelid irritation); *conjunctivitis* (redness of inner lining of eyelid); *keratoconjunctivitis* (eye redness, irritation, or pain); *keratopathy* (eye redness, irritation, or pain).

VISION: *blurred vision, transient, after application; diplopia* (seeing double).

NOSE: *rhinitis* (runny nose).

MOUTH: *taste, bitter, sour, or other unusual*.

THROAT: *pharyngitis* (sore throat).

ABDOMEN: *necrosis, hepatic, fulminant*.

KIDNEYS: *pain*.

RESPIRATION: *dyspnea* (shortness of breath).

CHEST: *pain*.

EXTREMITIES: *hypertonia* (excessive muscle tone).

SKIN: *dermatitis* (skin rash); *alopecia* (hair loss); *urticaria* (hives).

GENERALITIES: *alopecia* (hair loss); *blood dyscrasias* (Stevens-Johnson syndrome, toxic epidermal necrolysis, fulminant hepatic necrosis, agranulocytosis, aplastic anemia); *carbonic anhydrase activity* (in both the cytoplasm and around the plasma membranes of the corneal endothelium); *hypertonia* (excessive muscle tone).

DIAGNOSTIC TESTS: *carbonic anhydrase activity* (in both the cytoplasm and around the plasma membranes of the corneal endothelium); agranulocytosis, aplastic anemia.

Bromfenac (Ophthalmic)

Commercial name(s): *Xibrom*.

Category: Anti-inflammatory, nonsteroidal (ophthalmic).

Conventional indications: Inflammation, ocular (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache*.

EYE: *burning; hyperemia, conjunctival* (increase in blood flow to the whites of the eyes); *iritis* (sensitivity to light; tearing; throbbing pain); *irritation; pain; pruritus* (itching of the eyes); *redness; sensation in eye, abnormal; stinging; epithelial breakdown, corneal* (blurred vision or other change in vision); *erosion, corneal* (eye irritation or redness); *keratitis* (eye redness, irritation, or pain); *perforation, corneal* (blurred vision or other change in vision); *thinning, corneal* (blurred vision or other change in vision); *ulceration corneal* (eye irritation or redness).

Bromocriptine (Systemic)

Commercial name(s): *Alti-Bromocriptine; Apo-Bromocriptine; Parlodel; Parlodel SnapTabs.*

Category: Dopamine agonist; Antihyperprolactinemic; Infertility therapy adjunct; Lactation inhibitor; Antidyskinetic; Growth hormone suppressant (acromegaly) ; Neuroleptic malignant syndrome (NMS) therapy.

Conventional indications: Prolactinomas, pituitary (treatment); Amenorrhea, secondary, due to hyperprolactinemia (treatment); Galactorrhea due to hyperprolactinemia (treatment); Hypogonadism, male, due to hyperprolactinemia (treatment); Infertility due to hyperprolactinemia (treatment); Lactation, after second- or third-trimester pregnancy loss (prophylaxis); Parkinsonism (treatment); Acromegaly (treatment); Neuroleptic malignant syndrome (NMS) (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *dopamine, increase of the levels; confusion; depression, mental; hallucinations.*

VERTIGO: *hypotension, orthostatic* (dizziness or lightheadedness, especially when getting up from a lying or sitting position); *fainting* (with high doses; has also occurred with low doses used in postpartum patients).

HEAD: *strokes* (atypical headache; vision changes, such as blurred vision or temporary blindness; sudden weakness).

NOSE: *stuffy nose; rhinorrhea, cerebrospinal fluid* (continuing runny nose) (in patients treated for pituitary macroadenomas) (with high doses).

MOUTH: *dry.*

STOMACH: *nausea; appetite, loss of; pain; vomiting; hemorrhage, gastrointestinal* (with high doses); *ulcer, peptic* (black, tarry stools; blood in vomit; severe or continuing stomach pain) (with high doses).

ABDOMEN: *fibrosis, retroperitoneal* (continuing or severe abdominal or stomach pain; increased frequency of urination; continuing loss of appetite; lower back pain; continuing or severe nausea and vomiting; weakness) (with high doses; with long-term use); *hemorrhage, gastrointestinal* (with high doses).

RECTUM: *constipation; diarrhea; hemorrhage, gastrointestinal* (with high doses).

GENITALIA MALE: *fertility adjunct.*

GENITALIA FEMALE: *fertility adjunct; lactation inhibitor.*

CHEST: *effusion, pleural; infarction, myocardial* (severe chest pain; fainting; fast heartbeat; increased sweating; continuing or severe nausea and vomiting; nervousness; unexplained shortness of breath; weakness); *infiltrates, pulmonary; thickening of the pleura.*

EXTREMITIES: *cramps, leg, at night; Raynaud's phenomenon* (tingling or pain in fingers or toes when exposed to cold).

SLEEP: *drowsiness.*

GENERALITIES: *dopamine, increase of the levels; fertility adjunct; growth hormone suppressant (acromegaly); lactation inhibitor; hypotension; hypotension, orthostatic*

(dizziness or lightheadedness, especially when getting up from a lying or sitting position); dyskinesia (uncontrolled movements of the body, such as the face, tongue, arms, hands, head, and upper body); tiredness; death; hypertension, postpartum (in patients treated with bromocriptine to suppress lactation); infarction, myocardial (severe chest pain; fainting; fast heartbeat; increased sweating; continuing or severe nausea and vomiting; nervousness; unexplained shortness of breath; weakness); seizures.

Bronchodilators, Adrenergic (Inhalation-Local)

Commercial name(s): *Adrenalin Chloride; Airet; Alupent; Apo-Salvent; Arm-a-Med Isoetharine; Arm-a-Med Metaproterenol; AsthmaNefrin; Asthmahaler Mist; Berotec; Beta-2; Brethaire; Bricanyl Turbuhaler; Bronkaid Mist; Bronkaid Suspension Mist; Bronkometer; Bronkosol; Dey-Lute Isoetharine; Dey-Lute Metaproterenol; Foradil; Gen-Salbutamol Sterinebs P.F.; Isuprel; Isuprel Mistometer; Maxair; Maxair Autohaler; Medihaler-Iso; Nephron; Novo-Salmol; Oxeze Turbuhaler; Oxeze Turbuhaler Foradil; Primatene Mist; Pro-Air; Proventil; Proventil HFA; S-2; Serevent; Serevent Diskhaler; Serevent Diskus; Vaponefrin; Ventodisk; Ventolin; Ventolin HFA; Ventolin Nebules; Ventolin Nebules P.F.; Ventolin Rotacaps; microNefrin.*

Category: Bronchodilator [Albuterol; Bitolterol; Epinephrine; Fenoterol; Formoterol; Isoetharine; Isoproterenol; Metaproterenol; Pirbuterol; Procaterol; Salmeterol; Terbutaline]; Croup therapy agent [Epinephrine; Racepinephrine].

Conventional indications: Asthma (treatment) [Formoterol]; Bronchospasm, asthma-associated (treatment) [Albuterol, bitolterol, fenoterol, metaproterenol, pirbuterol, procaterol, and terbutaline]; Bronchospasm, asthma-associated (prophylaxis) [Salmeterol and formoterol]; Bronchospasm, exercise-induced (prophylaxis) [Albuterol, bitolterol, formoterol, pirbuterol, procaterol, salmeterol, and terbutaline]; Bronchospasm, chronic bronchitis-associated (prophylaxis and treatment), Bronchospasm, pulmonary emphysema-associated (prophylaxis and treatment) or Bronchospasm, chronic obstructive pulmonary disease-associated (prophylaxis and treatment) [Albuterol, bitolterol, fenoterol, metaproterenol, pirbuterol, procaterol, salmeterol, and terbutaline]; Chronic obstructive pulmonary disease [COPD] (treatment) [Formoterol and salmeterol]; Croup (treatment) [Racepinephrine and nebulized epinephrine]; Hyperkalemia (treatment) [Albuterol].

Primary Actions or Pathogenetic Symptoms

MIND: nervousness; restlessness; agitation; hallucinations [Nebulized albuterol]; paranoia [Nebulized albuterol].

VERTIGO: dizziness or light-headedness.

HEAD: headache.

MOUTH: coloration of saliva, pinkish to red [Isoproterenol]; dryness; irritation, oropharyngeal (irritation of throat or mouth); taste changes.

THROAT: dryness; irritation, oropharyngeal (irritation of throat or mouth).

STOMACH: nausea; vomiting.

LARYNX AND TRACHEA: spasm, irritation, or swelling, laryngeal (feeling of choking) [Salmeterol].

RESPIRATION: *spasm, laryngeal* (feeling of choking) [Salmeterol].

COUGH: *coughing*.

CHEST: *bronchodilatation* [Albuterol; Bitolterol; Epinephrine; Fenoterol; Formoterol; Isoetharine; Isoproterenol; Metaproterenol; Pirbuterol; Procaterol; Salmeterol; Terbutaline]; **heartbeat, fast;** *irritation, bronchial; discomfort; heartbeat, irregular; pain;* tachyarrhythmias (fast and irregular heartbeat, continuing); tachycardia (fast heartbeat, continuing).

EXTREMITIES: *cramps, muscle; twitching, muscle;* vasoconstriction, peripheral [Epinephrine]

SLEEP: *drowsiness; trouble in sleeping*.

SKIN: *dermatitis, hypersensitivity-induced* (angioedema [swelling of face, lips, or eyelids]; skin rash; urticaria [hives]).

GENERALITIES: **heartbeat, fast; trembling;** *blood pressure, increase in* [Epinephrine]; *cramps, muscle; death* (with use of inhaled sympathomimetics); *fatigue* (weakness); *heartbeat, irregular; hypokalemia; sensitivity reaction to sulfites* (chest pain; dizziness, severe, or feeling faint; flushing or redness of skin, continuing; skin rash, hives, or itching; swelling of face, lips, or eyelids; wheezing or difficulty in breathing) [Isoetharine, Isoproterenol, and Racepinephrine inhalation solutions containing sulfites]; *twitching, muscle;* alkalosis, respiratory; hypercalcemia; hyperglycemia; hypophosphatemia; hypotension (dizziness or lightheadedness); lactic acidosis; leukocytosis; seizures; tachyarrhythmias (fast and irregular heartbeat, continuing); tachycardia (fast heartbeat, continuing); vasoconstriction, peripheral [Epinephrine].

DIAGNOSTIC TESTS: *hypokalemia;* hypercalcemia; hyperglycemia; hypophosphatemia; leukocytosis.

Secondary Actions or Rebound Effects: *asthma, significantly worsening or acutely deteriorating* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing) [Salmeterol]; *bronchospasm, hypersensitivity-induced* (shortness of breath; troubled breathing; tightness in chest; wheezing); *bronchospasm, paradoxical* (shortness of breath; troubled breathing; tightness in chest; wheezing).

Bronchodilators, Adrenergic (Systemic)

Commercial name(s): *Adrenalin; Alupent; Ana-Guard; Brethine; Bricanyl; EpiPen; EpiPen Auto-Injector; EpiPen Jr.; EpiPen Jr. Auto-Injector; Isuprel; Proventil; Proventil Repetabs; Ventolin; Volmax.*

Category: Bronchodilator [Albuterol; Epinephrine; Isoproterenol; Metaproterenol; Terbutaline]; Anesthetic, local and regional, adjunct [Epinephrine]; Antiallergic, systemic [Epinephrine]; Tocolytic [Terbutaline]; Priapism reversal agent [Epinephrine]; Antihemorrhagic, dental [Epinephrine].

Conventional indications: Asthma, bronchial (treatment), Bronchitis (treatment) Bronchospasm (treatment) or Emphysema, pulmonary (treatment) [Albuterol, subcutaneous or intramuscular epinephrine, metaproterenol, and terbutaline]; Allergic reactions (treatment), Anaphylactic or anaphylactoid reactions (treatment) or Angioedema

(treatment) [Epinephrine injection]; Anesthesia, local, adjunct or Anesthesia, regional, adjunct [Epinephrine]; Priapism (treatment) [Epinephrine]; Hemorrhage, gingival (treatment) or Hemorrhage, pulpal (treatment) [Epinephrine]; Hyperkalemia (treatment) [Albuterol].

Primary Actions or Pathogenetic Symptoms

MIND: *anesthesia* [Epinephrine]; **anxiety** [Epinephrine]; **nervousness**; *agitation, psychomotor* [Epinephrine]; *behavior, assaultive* [Epinephrine]; *delusions, paranoid* (mental problems) [Epinephrine]; *disorientation* [Epinephrine]; *hallucinations* [Epinephrine]; *memory, impairment of* [Epinephrine]; *panic* [Epinephrine]; *suicidal or homicidal tendencies* [Epinephrine]; *schizophrenic-type thought disorder* [Epinephrine]; anxiety and tension, possibly leading to psychosis [Ephedrine]; craving for the medication [Ephedrine]; irritability [Ephedrine]; personality changes [Ephedrine].

VERTIGO: *dizziness*; *vertigo* (feeling of constant movement of self or surroundings); *Adams-Stokes attacks* (fainting) [Isoproterenol].

HEAD: **headache**; *hemorrhage, cerebral* (especially in elderly patients) [Ephedrine; Epinephrine]; *hemorrhage, subarachnoid* [Ephedrine; Epinephrine].

EYE: pupils, dilated [Ephedrine].

VISION: blurred vision [Ephedrine].

NOSE: congestion, chronic [Ephedrine].

MOUTH: *edema, oropharyngeal* (tightness in throat; trouble in breathing); dry [Albuterol, Isoproterenol, Metaproterenol, and Terbutaline].

THROAT: *edema, oropharyngeal* (tightness in throat; trouble in breathing).

STOMACH: *nausea*; *vomiting*.

BLADDER: *hesitation, urinary* (trouble in urinating) (as the result of vesical sphincter spasm; more common for Terbutaline); *retention, urinary* (trouble in urinating) (in males with prostatism; more common for Terbutaline); *spasm, vesical sphincter*; anuria [Ephedrine].

KIDNEYS: failure, renal [Epinephrine].

GENITALIA MALE: *erections, absent* (sexual impotence).

GENITALIA FEMALE: *atony (inertia) of uterus* (inhibition labor, slow down or halt the contractions of the uterus) [Terbutaline].

RESPIRATION: dyspnea [Epinephrine]; gasping respirations [Ephedrine]; failure, respiratory [Ephedrine].

CHEST: *bronchodilatation* [Albuterol; Epinephrine; Isoproterenol; Metaproterenol; Terbutaline]; **palpitation** (pounding heartbeat); **tachycardia** (fast heartbeat); *Adams-Stokes attacks* (fainting) [Isoproterenol]; *angina pectoris* [Ephedrine, Epinephrine]; *aortic rupture* [Ephedrine, Epinephrine]; *arrhythmias, cardiac* (fast or irregular heartbeat); *fibrillation, ventricular, fatal* [Epinephrine]; *pain*; angina [Albuterol, Isoproterenol, Metaproterenol, Terbutaline]; arrhythmias [Albuterol, Isoproterenol, Metaproterenol, Terbutaline]; block, atrioventricular (AV) [Epinephrine]; bradycardia, transient, followed by tachycardia [Epinephrine]; edema, pulmonary [Ephedrine, Epinephrine]; infarct, myocardial [Epinephrine]; stimulation, cardiac [Epinephrine]; tachyarrhythmias [Ephedrine].

BACK: opisthotonos [Ephedrine].

EXTREMITIES: *cramps, muscle; hemiplegia* [Ephedrine, Epinephrine]; constriction, vascular, peripheral [Epinephrine].

SLEEP: *insomnia* (trouble in sleeping).

CHILL: chills [Ephedrine].

FEVER: fever [Ephedrine].

PERSPIRATION: *sweating*.

SKIN: *skin rash; urticaria* (hives); coldness of skin [Epinephrine]; pallor, extreme [Epinephrine].

GENERALITIES: *anesthesia* [Epinephrine]; **palpitation** (pounding heartbeat); **tachycardia** (fast heartbeat); **tremor;** *cramps, muscle; Adams-Stokes attacks* (fainting) [Isoproterenol]; *angioedema* (hoarseness; large hive-like swellings on eyelids, face, genitals, hands or feet, lips, throat, tongue; sudden trouble in swallowing or breathing); *arrhythmias, cardiac* (fast or irregular heartbeat); *arteriosclerosis* [Isoproterenol]; *death; erythema multiforme* (reaction starting with chills; fever; general feeling of illness; muscle aches or pains; sore throat; and/or nausea with or without vomiting; followed by sores, ulcers, or white spots in mouth or on lips; skin rash or sores; hives; and/or itching) (oral albuterol in children); *fibrillation, ventricular, fatal* [Epinephrine]; *hemiplegia* [Ephedrine; Epinephrine]; *hypertension* (increase in blood pressure) (more common for Epinephrine); *hypokalemia* (irregular heartbeat; muscle cramps or pain; unusual tiredness or weakness); *seizures* [Albuterol, Isoproterenol, Metaproterenol, and Terbutaline]; *Stevens-Johnson syndrome* (bleeding or crusting sores on lips; chest pain; fever with or without chills; muscle cramps or pain; painful eyes; painful sores, ulcers, or white spots in mouth; skin rash; sore throat; red or irritated eyes) (oral Albuterol in children); arrhythmias [Albuterol, Isoproterenol, Metaproterenol, and Terbutaline]; blood pressure elevation, arterial, extreme [Epinephrine]; bradycardia, transient, followed by tachycardia [Epinephrine]; constriction, vascular, peripheral [Epinephrine]; fatigue [Albuterol, Isoproterenol, Metaproterenol, and Terbutaline]; hyperglycemia [Albuterol, Isoproterenol, Metaproterenol, and Terbutaline]; hypotension [Albuterol, Ephedrine, Isoproterenol, Metaproterenol, and Terbutaline]; infarct, myocardial [Epinephrine]; malaise [Albuterol, Isoproterenol, Metaproterenol, and Terbutaline]; metabolic acidosis [Epinephrine]; spasms [Ephedrine]; stimulation, cardiac [Epinephrine]; syndrome resembling an anxiety state (including symptoms of paranoid schizophrenia and other physical signs including tachycardia, poor nutrition and hygiene, fever, cold sweat, and dilated pupils) [Ephedrine]; tachyarrhythmias [Ephedrine]; tremor [Albuterol, Isoproterenol, Metaproterenol, and Terbutaline].

DIAGNOSTIC TESTS: *fibrillation, ventricular, fatal* [Epinephrine]; *hypokalemia*; hyperglycemia [Albuterol, Isoproterenol, Metaproterenol, and Terbutaline]; metabolic acidosis [Epinephrine].

Secondary Actions or Rebound Effects: *bronchospasm, paradoxical* (shortness of breath) [Albuterol; Terbutaline]; hypoglycemia, rebound [Albuterol, Isoproterenol, Metaproterenol, and Terbutaline].

Bronchodilators, Theophylline (Systemic)

Commercial name(s): *Aerolate Sr; Apo-Oxtriphylline; Apo-Theo LA; Asmalix; Choledyl; Choledyl SA; Elixophyllin; Lanophyllin; PMS Theophylline; PMS-Oxtriphylline; Phyllocontin; Phyllocontin-350; Pulmophylline; Quibron-T Dividose; Quibron-T/SR Dividose; Respbid; Slo-Bid Gyrocaps; Slo-Phyllin; T-Phyl; Theo-24; Theo-Dur; Theo-SR; Theo-Time; Theo-X; Theobid Duracaps; Theochron; Theolair; Theolair SR; Theolair-SR; Theovent Long-Acting; Truphylline; Truxophyllin; Uni-Dur; Uniphyl.*

Category: Bronchodilator [Aminophylline; Oxtriphylline; Theophylline]; Asthma prophylactic [Aminophylline; Oxtriphylline; Theophylline]; Stimulant, respiratory [Aminophylline Injection USP; Aminophylline Oral Solution USP; Theophylline Elixir; Theophylline Oral Solution; Theophylline Syrup]; Antidote (to dipyridamole toxicity) [Aminophylline Injection USP].

Conventional indications: Asthma, bronchial (prophylaxis and treatment) [Aminophylline, oxtriphylline, and theophylline]; Bronchitis, chronic (treatment), Emphysema, pulmonary (treatment) or Pulmonary disease, chronic obstructive, other (treatment) [Aminophylline, oxtriphylline, and theophylline]; Apnea, neonatal (treatment adjunct) [Aminophylline oral solution and injection and theophylline]; Toxicity, dipyridamole (treatment) [Parenteral aminophylline].

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety* (with too rapid intravenous administration) [Parenteral aminophylline and theophylline]; *nervousness*; agitation (nervousness or restlessness, continuing); behavior, changes in; confusion.

HEAD: *headache*.

THROAT: *reflux, gastroesophageal* (heartburn; vomiting); *relaxation of the gastroesophageal sphincter* [Aminophylline, Oxtriphylline, or Theophylline].

STOMACH: *nausea; reflux, gastroesophageal* (heartburn; vomiting); *vomiting* (with too rapid intravenous administration) [Parenteral Aminophylline and Theophylline]; *relaxation of the gastroesophageal sphincter* [Aminophylline, Oxtriphylline, or Theophylline]; hematemesis (dark or bloody vomit).

ABDOMEN: pain, abdominal, continuing or severe.

RECTUM: diarrhea.

BLADDER: *urination, increased*.

KIDNEYS: renal failure, myoglobinuric [Theophylline].

RESPIRATION: hypoxia [Theophylline].

CHEST: *bronchodilatation* [Aminophylline, Oxtriphylline, Theophylline]; *tachycardia* (fast heartbeat); *arrest, cardiac* (following rapid direct administration through a central venous catheter) [Parenteral Aminophylline and Theophylline]; *arrhythmias, ventricular*; tachyarrhythmias (fast and irregular heartbeat).

EXTREMITIES: rhabdomyolysis [Theophylline].

SLEEP: *insomnia* (trouble in sleeping).

SKIN: *dermatitis, ethylenediamine hypersensitivity-induced* (hives; skin rash; sloughing of skin) [Aminophylline].

GENERALITIES: *tachycardia* (fast heartbeat); *trembling*; *arrhythmias, ventricular*; *death*; *hypotension* (dizziness; lightheadedness); hyperglycemia; hypokalemia; hypoxia

[Theophylline]; metabolic acidosis; rhabdomyolysis [Theophylline]; seizures (convulsions); tachyarrhythmias (fast and irregular heartbeat).

DIAGNOSTIC TESTS: *arrhythmias, ventricular*; hyperglycemia; hypokalemia; hypoxia [Theophylline]; metabolic acidosis.

Buclizine (Systemic)

Commercial name(s): *Aphilan R; Aphilan-R Base; Bucladin; Bucladin-S; Buclifen; Buclina; Buclodin; Histabuticine; Histabutizine; Histabutyzyne; Histabutyzyne Dihydrochloride; Histabutyzyne Hydrochloride; Hitabutyzyne; Longifene; Posdel; Postafen; Softran; Vibazine.*

Category: Antiemetic.

Conventional indications: Motion sickness (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness; restlessness.*

HEAD: *headache.*

VISION: *blurred vision.*

NOSE: *dryness.*

MOUTH: *dryness.*

THROAT: *dryness.*

STOMACH: *upset, stomach.*

SLEEP: *drowsiness; trouble in sleeping.*

Buprenorphine (Systemic)

Commercial name(s): *Buprenex.*

Category: Analgesic, opioid agonist/antagonist; Anesthesia adjunct.

Conventional indications: Pain (treatment); Anesthesia, general, adjunct; Anesthesia, local, adjunct.

Primary Actions or Pathogenetic Symptoms

MIND: *anesthesia* (unconsciousness); *anxiety; confusion; delusions; depersonalization, feelings of; depression, mental; dysphoria; hallucinations; mood or mental changes; psychosis; unreality, feelings of.*

VERTIGO: *dizziness or lightheadedness.*

HEAD: *headache.*

EYE: *conjunctivitis* (red and/or irritated eyes); pinpoint pupils.

VISION: *blurred vision or any change in vision.*

NOSE: *nose, runny; sneezing.*

HEARING: *ringing or buzzing in ears.*

MOUTH: *speech, slurred.*

STOMACH: *nausea* (especially in ambulatory patients); *vomiting* (especially in ambulatory patients); *appetite, loss of; cramps, stomach.*

RECTUM: *diarrhea*.

BLADDER: *retention, urinary* (decreases in amount of urine; swelling of face, fingers, hands, feet, or lower legs; weight gain).

RESPIRATION: *depression, respiratory* (unusually slow breathing); slow or troubled breathing.

CHEST: *heart rate decreased; Wenckebach block*.

SLEEP: *drowsiness*.

DREAMS: *nightmares*.

PERSPIRATION: *sweating, increased*.

SKIN: *dermatitis, allergic* (skin rash, hives, or itching); *pruritus* (epidural administration); cold, clammy skin.

GENERALITIES: *anesthesia; pain absence; blood pressure, decreased; CNS effects* (confusion, hallucinations, mental depression or other mood or mental changes; psychosis; ringing or buzzing in ears); *appetite, loss of; feeling of discomfort or illness, general; heart rate decreased; pain, redness, or swelling at place of injection; paresthesia* (pain, numbness, tingling, or burning feeling in hands or feet); *sense of well-being, false; shock* (pallor, cold skin, low blood pressure, and tachycardia) [Epidural Buprenorphine]; *tiredness, unusual; trembling; weakness, unusual; convulsions*.

DIAGNOSTIC TESTS: *Wenckebach block*.

Secondary Actions or Rebound Effects: *aches, body; blood pressure, increased; eyes, large pupils of, unusually; fever, unexplained; gooseflesh; heartbeat, fast; heart rate, increased; irritability; nervousness, unusual; restlessness; shivering or trembling; sleeping, trouble in; yawning*.

Bupropion (Systemic)

Commercial name(s): *Wellbutrin; Wellbutrin SR; Wellbutrin XL; Zyban*.

Category: Antidepressant; Smoking cessation adjunct.

Conventional indications: Depressive disorder, major (treatment); Nicotine dependence (treatment adjunct) [sustained-release formulation].

Primary Actions or Pathogenetic Symptoms

MIND: *agitation; anxiety; akathisia (psychomotor restlessness)* (inability to sit still; need to keep moving; restlessness); *confusion; concentrating, trouble in; delusions* (false beliefs that are not changed by facts); *hallucinations* (seeing, hearing, or feeling things that are not there); *hostility (aggressiveness)* (anger; attack; assault; force); *hypomania or mania* (actions that are out of control; irritability; nervousness; talking, feeling, and acting with excitement); *impulsivity; irritability; panic attacks* (anxiety, chest pain or discomfort, fast or pounding heartbeat, sweating); *paranoia* (extreme distrust); consciousness, loss of.

VERTIGO: *dizziness; fainting*.

HEAD: *headache, severe*.

VISION: *blurred vision*.

HEARING: *tinnitus* (buzzing or ringing in ears).

MOUTH: dryness; taste perversion (change in sense of taste).

THROAT: pharyngitis (sore throat).

STOMACH: anorexia (decrease in appetite); nausea; vomiting.

ABDOMEN: pain, abdominal.

RECTUM: constipation.

BLADDER: frequency, urinary.

CHEST: palpitation (feeling of fast or irregular heartbeat); tachycardia (fast heartbeat) (possibly progressing to bradycardia or asystole).

EXTREMITIES: myalgia (muscle pain); akathisia (*psychomotor restlessness*) (inability to sit still; need to keep moving; restlessness).

SLEEP: insomnia (trouble in sleeping); drowsiness.

PERSPIRATION: sweating, increased.

SKIN: hives; itching; skin rash.

GENERALITIES: tremor (trembling or shaking); weight loss, unusual; feeling of well-being, unusual; palpitation (feeling of fast or irregular heartbeat); seizures (especially with higher doses); death; tachycardia (fast heartbeat) (possibly progressing to bradycardia or asystole).

Buserelin (Systemic)

Commercial name(s): Suprefact.

Category: Antineoplastic.

Conventional indications: Carcinoma, prostatic (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache (with intranasal use).

NOSE: dry (with intranasal use); sore (with intranasal use only).

STOMACH: appetite, loss of; nausea; vomiting.

RECTUM: diarrhea.

BLADDER: urination, difficult, worsen of, transient.

GENITALIA MALE: impotence; sexual desire, decrease in.

CHEST: swelling of breasts; tenderness of breasts increased.

EXTREMITIES: swelling of feet or lower legs; paresthesias of the lower extremities (in patients with vertebral metastases).

PERSPIRATION: sweating, increased (with intranasal use).

GENERALITIES: hot flashes (sudden sweating and feelings of warmth); burning, itching, redness, or swelling at site of injection; disease flare, possible (bone pain; numbness or tingling of hands or feet; trouble in urinating; weakness in legs); weakness, temporary (in patients with vertebral metastases).

Buspirone (Systemic)

Commercial name(s): BuSpar; BuSpar DIVIDOSE; Bustab.

Category: Antianxiety agent.

Conventional indications: Anxiety (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: concentration, decreased; confusion; depression, mental; sedation; consciousness, loss of.

VERTIGO: **dizziness or lightheadedness** (especially when getting up from a sitting or lying position).

HEAD: **headache.**

EYE: pupils, unusually small.

VISION: blurred vision.

HEARING: ringing in the ears.

MOUTH: dryness.

THROAT: sore.

STOMACH: **nausea**; vomiting; upset, stomach.

RECTUM: diarrhea.

CHEST: heartbeat, fast or pounding; pain.

EXTREMITIES: cramps, muscle; pain, muscle; spasms, muscle; stiffness, muscle; neurologic effects (incoordination; muscle weakness; numbness, tingling, pain, or weakness in hands or feet; stiffness of arms or legs; uncontrolled movements of the body).

SLEEP: drowsiness; insomnia (trouble in sleeping); sedation.

DREAMS: nightmares; vivid dreams.

FEVER: fever.

PERSPIRATION: sweating.

SKIN: clamminess; hives; skin rash.

GENERALITIES: cramps, muscle; pain, muscle; spasms, muscle; stiffness, muscle; tiredness or weakness, unusual; heartbeat, fast or pounding; neurologic effects (incoordination; muscle weakness; numbness, tingling, pain, or weakness in hands or feet; stiffness of arms or legs; uncontrolled movements of the body); sedation.

Secondary Actions or Rebound Effects: **syndrome of restlessness** (restlessness, nervousness, or unusual excitement).

Busulfan (Systemic)

Commercial name(s): *Busulfex*; *Myleran*.

Category: Antineoplastic.

Conventional indications: Leukemia, chronic myelogenous (myeloid, myelocytic, granulocytic) (treatment); Conditioning regimen (treatment adjunct) [Busulfan injection]; Leukemia, acute nonlymphocytic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety** [Busulfan injection]; confusion; depression.

HEAD: **headache** [Busulfan injection].

EYE: *cataracts* (blurred vision) (after prolonged administration); *lens changes* (changes in lenses of eyes); *thinning, corneal* (blurred vision or other change in vision).

NOSE: *epistaxis* (bloody nose); *rhinitis* (stuffy nose; runny nose; sneezing).

MOUTH: *stomatitis* (inflammation of the oral mucosa) [Busulfan injection]; *dry*.

THROAT: *pharyngitis* (sore throat); *esophagitis* (heartburn; difficulty swallowing); *varices, esophageal*.

STOMACH: *anorexia* (loss of appetite and weight loss); **nausea; vomiting; hematemesis** (vomiting blood).

ABDOMEN: **pain, abdominal;** *atrophy, hepatocellular* (abdominal pain; bloating of abdomen; dark urine; light-colored stools; nausea and vomiting; yellow eyes or skin); *fibrosis, centrilobular sinusoidal* (abdominal pain; feeling of fullness in upper abdomen; bleeding from the esophagus; vomiting); *hepatic veno-occlusive disease* (bloated abdomen; pain and fullness in right upper abdomen; weight gain; yellow eyes and skin); *hyperbilirubinemia* (yellow eyes or skin); *hyperplasia, regenerative, on liver biopsy; necrosis, hepatocellular* (abdominal or stomach pain; black, tarry stools; chills; light-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *pancreatitis* (severe upper abdominal and back pain).

RECTUM: *diarrhea; constipation*.

KIDNEYS: *nephropathy, uric acid* (joint pain; lower back or side pain; swelling of feet or lower legs) (long-term use or high dosage).

GENITALIA FEMALE: **amenorrhea and ovarian suppression** (missed or irregular menstrual periods).

RESPIRATION: *dyspnea* (shortness of breath) (long-term use or high dosage); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

COUGH: *cough*.

CHEST: *pain* (long-term use or high dosage); *tachycardia* (rapid heartbeat) (long-term use or high dosage); *dysplasia, bronchopulmonary, with pulmonary fibrosis* (fever; cough; shortness of breath); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); *toxicity, pulmonary* (cough or shortness of breath).

EXTREMITIES: *edema* (swelling of fingers, hands, arms, lower legs, or feet) (long-term use or high dosage) [Busulfan injection]; *thrombosis* (tingling in lower legs, hands, or feet) (long-term use or high dosage).

SLEEP: *insomnia* (trouble in sleeping) [Busulfan injection].

SKIN: *rash; darkening of skin; pruritus* (itching).

GENERALITIES: **anemia; asthenia** (general fatigue; muscle pain) [Busulfan injection]; **bone marrow failure** (chest pain; chills; cough or hoarseness; fever; lower back or side pain; painful or difficult urination; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); **infection; leukopenia; thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin) (**occurs in 100% of patients**); *allergic reaction* (fast or irregular breathing; puffiness or swelling around face; shortness of breath; sudden, severe decrease in blood pressure) (long-term use or high dosage)

[Busulfan injection]; *hyperuricemia* (long-term use or high dosage); *inflammation at injection site*; *tachycardia* (rapid heartbeat) (long-term use or high dosage); *pain*; *thrombosis* (tingling in lower legs, hands, or feet) (long-term use or high dosage); *vasodilation* (dizziness; light-headedness; sweating) (long-term use or high dosage); *anemia, aplastic* (chest pain; chills; cough; fever; headache; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen or painful glands; tightness in chest; unusual bleeding or bruising; unusual tiredness or weakness; wheezing); *bone marrow depression*; *death*; *dysplasia, cellular, in many tissues* (including lungs, lymph nodes, pancreas, thyroid, adrenal gland, liver, bone marrow, bladder, breast, and uterine cervix); *hyperbilirubinemia* (yellow eyes or skin); *mucositis* (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth); *pancreatitis* (severe upper abdominal and back pain); *pancytopenia*; *seizures*; *sepsis* (chills; confusion; dizziness; lightheadedness; fainting; fast heartbeat; fever; rapid, shallow breathing); bone marrow hypoplasia/aplasia.

DIAGNOSTIC TESTS: *anemia*; *leukopenia*; *thrombocytopenia*; *hyperuricemia*; *anemia, aplastic*; *dysplasia, cellular, in many tissues*; *hepatic function tests, abnormal*; *hyperbilirubinemia*; *pancytopenia*; bone marrow hypoplasia/aplasia.

Butenafine (Topical)

Commercial name(s): *Mentax*.

Category: Antifungal (topical).

Conventional indications: Tinea pedis (treatment); Tinea corporis (treatment); Tinea cruris (treatment); Tinea (pityriasis) versicolor (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *dermatitis, contact* (rash); *hypersensitivity* (blistering, burning, itching, oozing, stinging, swelling or other signs of skin irritation not present before use of this medicine); *redness*.

Butorphanol (Nasal-Systemic)

Commercial name(s): *Stadol NS*.

Category: Analgesic.

Conventional indications: Pain (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion*; *anxiety*; *behavior changes*; *floating feeling*; *nervousness*; *restlessness*; *hallucinations*; unconsciousness.

VERTIGO: *dizziness*; *fainting*.

HEAD: *headache*.

EYE: *pinpoint pupils*.

VISION: *blurred vision*.

EAR: *pain*.

HEARING: *tinnitus* (ringing or buzzing in ears).

NOSE: *pain absence*; *bleeds*; *congestion*; *congestion, sinus*; *irritation, inside*; *runny nose*; *sinusitis* (sinus congestion with pain).

MOUTH: *dry*; *taste, unpleasant*.

THROAT: *sore*.

STOMACH: *appetite, loss of*; *nausea*; *vomiting*.

RECTUM: *constipation*.

BLADDER: *urinating, difficulty in*.

RESPIRATION: *difficulty in breathing*; *infection, upper respiratory* (fever; sneezing); *bronchitis* (congestion in chest; cough; difficult or painful breathing); *slow or troubled breathing*.

COUGH: *cough*.

CHEST: *bronchitis* (congestion in chest; cough; difficult or painful breathing); *heartbeat, pounding*; *heartbeat, slow*.

SLEEP: *drowsiness*; *trouble in sleeping*.

DREAMS: *strange dreams*.

FEVER: *hot feeling*.

PERSPIRATION: *sweating*.

SKIN: *clammy feeling*; *burning*; *crawling*; *itching*; *prickling feeling*; *hives*; *skin rash*; *cold, clammy skin*.

GENERALITIES: *pain absence*; *infection, upper respiratory* (fever; sneezing); *vasodilation* (flushing); *weakness, severe*; *heartbeat, pounding*; *hot feeling*; *sense of well-being, false*; *sinusitis* (sinus congestion with pain); *trembling*; *blood pressure, decrease in*; *dependence*; *convulsions*; *heartbeat, slow*.

Secondary Actions or Rebound Effects: *diarrhea*; *gastric pain*.

Cabergoline (Systemic)

Commercial name(s): *Dostinex*.

Category: Dopamine agonist; Antihyperprolactinemic.

Conventional indications: Hyperprolactinemic disorders (treatment); Prolactinomas, pituitary (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *dopamine, increase of the levels; depression, mental; concentration, impaired; hallucinations.*

VERTIGO: *dizziness; vertigo (sensation of motion, usually whirling, either of oneself or of one's surroundings); hypotension, especially orthostatic (fainting or lightheadedness when getting up from a lying or sitting position; unusually fast heartbeat); syncope (fainting; lightheadedness; palpitations).*

HEAD: *headache.*

EYE: *edema, periorbital (vision changes).*

NOSE: *congestion.*

FACE: *acne.*

MOUTH: *dryness.*

TEETH: *toothache.*

STOMACH: *dyspepsia (stomach discomfort following meals); nausea; flatulence (stomach or intestinal gas); vomiting; anorexia (loss of appetite associated with weight loss or gain); ulcer, gastric.*

ABDOMEN: *flatulence (stomach or intestinal gas); pain, abdominal; ulcer, duodenal.*

RECTUM: *constipation; diarrhea.*

GENITALIA MALE: *libido, increased (increased sex drive).*

GENITALIA FEMALE: *lactation inhibitor; libido, increased (increased sex drive).*

CHEST: *effusion, pleural; fibrosis, pulmonary; pericarditis, constrictive.*

EXTREMITIES: *pain, muscle or joint; edema, peripheral (swelling of hands, ankles, or feet).*

SLEEP: *insomnia (trouble in sleeping); somnolence (sleepiness).*

SKIN: *hot flashes; pruritus (itching of skin); acne.*

GENERALITIES: *dopamine, increase of the levels; lactation inhibitor; asthenia (weakness); flu-like symptoms (general feeling of discomfort or illness; runny nose; sore throat); pain, muscle or joint; paresthesia (unusual feeling of burning or stinging of skin); dyskinesia; hypotension, especially orthostatic (fainting or lightheadedness when getting up from a lying or sitting position; unusually fast heartbeat).*

Caffeine (Systemic)

Commercial name(s): *Cafcit; Caffedrine Caplets; Dexitac Stay Alert Stimulant; Enerjets; Keep Alert; Maximum Strength SnapBack Stimulant Powders; NoDoz Maximum Strength Caplets; Pep-Back; Quick Pep; Ultra Pep-Back; Vivarin; Wake-Up.*

Category: Central nervous system stimulant [Caffeine; Citrated Caffeine; Caffeine and Sodium Benzoate]; Analgesia adjunct [Caffeine]; Respiratory stimulant adjunct [Caffeine; Citrated Caffeine].

Conventional indications: Fatigue; Drowsiness (treatment); Apnea, neonatal (treatment adjunct) [Caffeine or citrated caffeine (but not caffeine and sodium benzoate combination)]; Apnea, infant, postoperative (prophylaxis) [Caffeine or citrated caffeine]; Electroconvulsive therapy (ECT) (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; irritability; nervousness*; agitation; confusion; delirium; excitement; restlessness.

VERTIGO: *dizziness*.

HEAD: *headache*.

VISION: flashes of “zig-zag” lights.

HEARING: ringing or other sounds in ears.

NOSE: *stuffy nose*.

STOMACH: **irritation, gastrointestinal** (diarrhea; nausea; vomiting); *nausea*; pain; vomiting, sometimes with blood.

ABDOMEN: **irritation, gastrointestinal** (diarrhea; nausea; vomiting); *enterocolitis, necrotizing* (abdominal distention; dehydration; diarrhea, bloody; irritability; unusual tiredness or weakness; vomiting) (in neonates); pain, abdominal; swollen abdomen, painful (in neonates).

BLADDER: urination, frequent.

RESPIRATION: *hyperventilation*; tachypnea.

CHEST: heartbeat, fast or irregular.

BACK: opisthotonos (hyperextension of the body with head and heels bent backward and body bowed forward) (in neonates).

EXTREMITIES: *tension, muscle*; sensitivity to touch or pain, increased; tiredness, unusual; trembling or twitching, muscle.

SLEEP: trouble in sleeping.

FEVER: fever.

SKIN: sensitivity to touch or pain, increased.

GENERALITIES: *pain absence*; **CNS stimulation** (dizziness; fast heartbeat; irritability, nervousness, or jitters (severe in neonates); tremors; trouble in sleeping); **hyperglycemia** (blurred vision; drowsiness; dry mouth; flushed, dry skin; fruit-like breath odor; increased urination [frequency and volume]; ketones in urine; loss of appetite; stomachache, nausea, or vomiting; tiredness; troubled breathing [rapid and deep]; unconsciousness; unusual thirst) (in neonates); **hypoglycemia** (anxiety; blurred vision; cold sweats; confusion; cool, pale skin; drowsiness; excessive hunger; fast heartbeat; nausea; nervousness; restless sleep; shakiness; unusual tiredness or weakness) (in neonates) (rebound effect?); dehydration; heartbeat, fast or irregular; leukocytosis (in neonates); seizures, usually tonic-clonic; sensitivity to touch or pain, increased; trembling or twitching, muscle; tremors, whole body (in neonates)

DIAGNOSTIC TESTS: **hyperglycemia; hypoglycemia** (rebound effect?); leukocytosis.

Secondary Actions or Rebound Effects: *tiredness, unusual.*

Calamine (Topical)

Commercial name(s): *Calamox; Diaper Rash Ointment; Onguent de Calamine.*

Category: Skin protectant; Antipruritic (topical).

Conventional indications: Skin irritations, minor (treatment).

Primary Actions or Pathogenetic Symptoms

No side/adverse effects have been reported.

Calcipotriene (Topical)

Commercial name(s): *Dovonex.*

Category: Antipsoriatic (topical).

Conventional indications: Psoriasis (treatment) [Calcipotriene cream and ointment]; Psoriasis, of scalp (treatment) [Calcipotriene topical].

Primary Actions or Pathogenetic Symptoms

HEAD: *folliculitis* (burning, itching, and pain in hairy areas; pus in the hair follicles).

URINE: *hypercalciuria* (high urine levels of calcium).

SKIN: **burning, transient; dermatitis** (redness and swelling of skin with itching); **dryness; erythema** (redness of skin); **irritation, transient; itching, transient; peeling; skin rash; atrophy of skin** (thinning, weakness, or wasting away of skin); *folliculitis* (burning, itching, and pain in hairy areas; pus in the hair follicles); *hyperpigmentation* (darkening of treated skin) [Cream and ointment, not reported with solution].

GENERALITIES: *hypercalcemia, severe* (high blood levels of calcium; in severe cases, abdominal pain, constipation, depression, easy fatigability, high blood pressure, loss of appetite, loss of weight, muscle weakness, nausea, thirst, and vomiting).

DIAGNOSTIC TESTS: *hypercalcemia, severe; hypercalciuria.*

Secondary Actions or Rebound Effects: **worsening of psoriasis, including development of psoriasis of the face and scalp.**

Calcitonin (Nasal-Systemic)

Commercial name(s): *Fortical; Miacalcin.*

Category: Bone resorption inhibitor; Osteoporosis therapy.

Conventional indications: Osteoporosis, postmenopausal (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental.*

VERTIGO: *dizziness.*

HEAD: headache.

EYE: conjunctivitis (burning, dry, or itching eyes); lacrimation, unusual (unusual tearing of eyes).

NOSE: crusts; dryness; epistaxis (nose bleeds); inflammation; irritation; itching; redness; rhinitis (runny nose); sores or wounds on nasal mucosa (ulcers); tenderness.

STOMACH: dyspepsia (upset stomach); nausea.

ABDOMEN: pain, abdominal.

RECTUM: constipation (mild hypercalcemia; early symptom of hypercalcemia); diarrhea (severe hypercalcemia;).

BLADDER: cystitis (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate).

RESPIRATION: bronchospasm (wheezing or troubled breathing, severe); infection, upper respiratory tract (chest pain; chills; cough; ear congestion or pain; fever; head congestion; hoarseness or other voice changes; nasal congestion; runny nose; sneezing; sore throat).

CHEST: angina (chest pain); bronchospasm (wheezing or troubled breathing, severe); infection, upper respiratory tract (chest pain; chills; cough; ear congestion or pain; fever; head congestion; hoarseness or other voice changes; nasal congestion; runny nose; sneezing; sore throat).

BACK: pain.

EXTREMITIES: exostosis (bone growth); arthralgia (joint pain); myalgia (muscle pain).

SKIN: flushing; skin rash; allergic reactions (hives; itching; skin rash).

GENERALITIES: exostosis (bone growth); arthralgia (joint pain); fatigue (unusual tiredness or weakness); flu-like symptoms; flushing; hypertension (dizziness; headaches, severe or continuing); infection, upper respiratory tract (chest pain; chills; cough; ear congestion or pain; fever; head congestion; hoarseness or other voice changes; nasal congestion; runny nose; sneezing; sore throat); lymphadenopathy (swollen glands); myalgia (muscle pain).

Calcitonin (Systemic)

Commercial name(s): *Calcimar; Cibacalcin; Miacalcin*.

Category: Bone resorption inhibitor; Osteoporosis therapy adjunct; Antihypercalcemic therapy adjunct.

Conventional indications: Paget's disease of bone (treatment); Osteoporosis, postmenopausal (treatment adjunct); Hypercalcemia (treatment adjunct); Osteoporosis, secondary (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

EAR: *flushing; redness; tingling*.

NOSE: *stuffy nose*.

FACE: *flushing; redness; tingling*.

STOMACH: *appetite, loss of; nausea; pain; vomiting*.

RECTUM: diarrhea.

BLADDER: *urination, frequency of, increased.*

RESPIRATION: *trouble in breathing.*

CHEST: *pressure in chest.*

EXTREMITIES: *exostosis* (bone growth); **flushing, redness, or tingling of hands, or feet; tenderness or tingling of hands or feet.**

CHILL: *chills.*

SKIN: *skin rash; urticaria* (hives).

GENERALITIES: *exostosis* (bone growth); **flushing; redness, soreness, or swelling at injection site; weakness.**

Calcium Acetate (Systemic)

Commercial name(s): *PhosLo.*

Category: Antihyperphosphatemic.

Conventional indications: Hyperphosphatemia (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: *nausea.*

SKIN: *pruritus* (itching).

GENERALITIES: *calcification, vascular, or other soft-tissue; hypercalcemia, mild* (constipation; loss of appetite; nausea or vomiting); *hypercalcemia, severe* (confusion; full or partial loss of consciousness; incoherent speech).

DIAGNOSTIC TESTS: *hypercalcemia, mild* (constipation; loss of appetite; nausea or vomiting); *hypercalcemia, severe* (confusion; full or partial loss of consciousness; incoherent speech).

Calcium Channel Blocking Agents (Systemic)

Commercial name(s): *Adalat; Adalat CC; Adalat PA; Adalat XL; Apo-Diltiaz; Apo-Nifed; Apo-Verap; Calan; Calan SR; Cardene; Cardizem; Cardizem CD; Cardizem LA; Cardizem SR; Dilacor-XR; Dynacirc; Isoptin; Isoptin SR; Nimotop; Norvasc; Novo-Diltazem; Novo-Nifedin; Novo-Veramil; Nu-Diltiaz; Nu-Nifed; Nu-Verap; Plendil; Procardia; Procardia XL; Renedil; Sibelium; Syn-Diltiazem; Vascor; Verelan; Verelan PM.*

Category: Antianginal [Amlodipine; Bepridil; Diltiazem; Felodipine; Isradipine; Nicardipine; Nifedipine; Verapamil]; Antiarrhythmic [Diltiazem; Verapamil]; Antihypertensive [Amlodipine; Diltiazem; Felodipine; Isradipine; Nicardipine; Nifedipine; Verapamil]; Hypertrophic cardiomyopathy therapy adjunct [Verapamil]; Subarachnoid hemorrhage therapy [Flunarizine; Nicardipine; Nimodipine]; Vascular headache prophylactic [Flunarizine; Verapamil].

Conventional indications: Angina pectoris, chronic (treatment) [Amlodipine, bepridil, diltiazem, felodipine, isradipine, nicardipine, nifedipine, and verapamil]; Tachycardia, supraventricular (treatment and prophylaxis) [Verapamil and parenteral diltiazem]; Hypertension (treatment) [Amlodipine, diltiazem, felodipine, isradipine, nicardipine,

nifedipine, and verapamil]; Cardiomyopathy, hypertrophic (treatment adjunct) [Verapamil]; Raynaud's phenomenon (treatment) [Felodipine, isradipine, nicardipine, and nifedipine]; Subarachnoid hemorrhage-associated neurologic deficits (treatment) [Nimodipine]; Headache, vascular (prophylaxis) [Flunarizine and verapamil].

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental* (less frequent with Flunarizine).

VERTIGO: *dizziness or lightheadedness* (more frequent with Bepridil and Nifedipine).

HEAD: *vasodilation, cerebral; headache.*

VISION: *blindness, transient* (at peak plasma concentration).

MOUTH: *dryness* (less frequent with Flunarizine); *enlargement, gingival* (bleeding, tender, or swollen gums).

STOMACH: *nausea* (more frequent with Bepridil and Nifedipine); *appetite, increased* (more frequent with Flunarizine).

RECTUM: *constipation; diarrhea* (more frequent with Bepridil).

RESPIRATION: *edema, pulmonary, possible* (breathing difficulty, coughing, or wheezing).

CHEST: *vasodilation, heart; bradycardia* (less than 50 beats per minute) (rare with Diltiazem, Flunarizine and Amlodipine) [Bepridil, Verapamil]; *congestive heart failure; edema, pulmonary, possible* (breathing difficulty, coughing, or wheezing); *arrythmias* (less frequent with Bepridil); *asystole* (slow heartbeat) [Diltiazem, Flunarizine, Amlodipine, Bepridil, Verapamil]; *block, AV, 2nd- or 3rd- degree* [Diltiazem, Flunarizine, Amlodipine, Bepridil, Verapamil]; *galactorrhea* (unusual secretion of milk); *torsades de pointes* (less frequent with Bepridil).

EXTREMITIES: *edema, peripheral* (swelling of ankles, feet, or lower legs) (more frequent with Felodipine, Nifedipine and Amlodipine); *arthritis* (painful, swollen joints) (associated with elevated ANA titers).

SLEEP: *drowsiness* (more frequent with Flunarizine).

SKIN: *allergic reaction* (skin rash); *flushing and feeling of warmth* (more frequent with Nicardipine and Nifedipine); *dermatitis, exfoliative* [Diltiazem].

GENERALITIES: *hypotension; vasodilation, cerebral, heart, and systemic; bradycardia* (less than 50 beats per minute) (rare with Diltiazem, Flunarizine and Amlodipine) [Bepridil, Verapamil]; *flushing and feeling of warmth* (more frequent with Nicardipine and Nifedipine); *tiredness or weakness, unusual; agranulocytosis; arrhythmias* (less frequent with Bepridil); *arthritis* (painful, swollen joints) (associated with elevated ANA titers); *erythema multiforme* [Diltiazem, Verapamil]; *extrapyramidal effects, parkinsonian* (loss of balance control, mask-like face, shuffling walk, stiffness of arms or legs, trembling and shaking of hands and fingers, trouble in speaking or swallowing) (less frequent with Flunarizine); *Stevens-Johnson syndrome* [Diltiazem, Verapamil]; *thrombocytopenia; weight gain* (more frequent with Flunarizine).

DIAGNOSTIC TESTS: *agranulocytosis; block, AV, 2nd- or 3rd- degree* [Diltiazem, Flunarizine, Amlodipine, Bepridil, Verapamil]; *thrombocytopenia; torsades de pointes* (less frequent with Bepridil).

Secondary Actions or Rebound Effects: *angina* (chest pain) (less frequent with Felodipine, Isradipine, Nicardipine); *tachycardia, reflex* (irregular or fast, pounding heartbeat) [Felodipine, Isradipine, Nicardipine, Nifedipine, Nimodipine].

Calcium Supplements (Systemic)

Commercial name(s): *Alka-Mints; Amitone; Apo-Cal; BioCal; Cal-Plus; Calcarb 600; Calci-Chew; Calci-Mix; Calciday 667; Calciject; Calcilac; Calcionate; Calcite 500; Calcium 600; Calcium Stanley; Calcium-Sandoz; Calcium-Sandoz Forte; Calglycine; Calphosan; Calsan; Caltrate 600; Caltrate Jr; Chooz; Citracal; Citracal Liquitabs; Dicarbosil; Gencalc 600; Gramcal; Liqui-Cal; Liquid Cal-600; Maalox Antacid Caplets; Mallamint; Neo-Calglucon; Nephro-Calci; Nu-Cal; Os-Cal; Os-Cal 500; Os-Cal Chewable; OsCal 500 Chewable; Oysco; Oysco 500 Chewable; Oyst-Cal 500; Oystercal 500; Posture; Rolaid's Calcium Rich; Titalac; Tums; Tums 500; Tums E-X; Tums Extra Strength; Tums Regular Strength.*

Category: Antihypocalcemic [Calcium Acetate; Calcium Carbonate; Calcium Chloride; Calcium Citrate; Calcium Glubionate; Calcium Gluceptate; Calcium Gluconate; Calcium Glycerophosphate and Calcium Lactate; Calcium Lactate; Calcium Lactate-Gluconate and Calcium Carbonate; Dibasic Calcium Phosphate; Tribasic Calcium Phosphate]; Electrolyte replenisher [Calcium Acetate; Calcium Chloride; Calcium Gluceptate; Calcium Gluconate Injection]; Cardiogenic [Calcium Chloride; Calcium Gluconate Injection]; Antihyperkalemic [Calcium Chloride; Calcium Gluconate Injection]; Antihypermagnesemic [Calcium Chloride; Calcium Gluceptate; Calcium Gluconate Injection]; Antacid [Calcium Carbonate]; Nutritional supplement (mineral) [Calcium Carbonate; Calcium Citrate; Calcium Glubionate, Oral; Calcium Gluceptate and Calcium Gluconate; Calcium Gluconate, Oral; Calcium Lactate; Calcium Lactate-Gluconate and Calcium Carbonate; Dibasic Calcium Phosphate; Tribasic Calcium Phosphate]; Antihyperphosphatemic [Calcium Carbonate; Calcium Citrate].

Conventional indications: Hypocalcemia, acute (treatment) [Parenteral calcium salts (i.e., acetate, chloride, gluceptate, and gluconate)]; Electrolyte depletion (treatment) [Calcium acetate, parenteral calcium chloride, calcium gluconate, and calcium gluceptate]; Cardiac arrest (treatment adjunct) [Parenteral calcium chloride, (or calcium gluconate)]; Hyperkalemia (treatment) [Calcium chloride and parenteral calcium gluconate]; Hypermagnesemia (treatment adjunct) [Calcium chloride, [calcium gluceptate], and calcium gluconate injections]; Hypocalcemia, chronic (treatment) [Oral calcium supplements]; Calcium deficiency (prophylaxis) [Oral calcium salts]; Hyperacidity (treatment); Hyperphosphatemia (treatment) [Calcium carbonate, Calcium citrate].

Primary Actions or Pathogenetic Symptoms

MIND: *confusion* (late symptom of hypercalcemia); *depression, mental* (early symptom of hypercalcemia); *irritability* (early symptom of hypercalcemia).

HEAD: *headache, continuing* (early symptom of hypercalcemia).

EYE: *sensitivity of eyes light, increased, especially in hemodialysis patients* (late symptom of hypercalcemia).

MOUTH: *dryness* (early symptom of hypercalcemia); *taste, metallic* (early symptom of hypercalcemia).

STOMACH: *reduction of gastric acid* (hypochloremic alkalosis) [Calcium Carbonate]; **nausea; vomiting;** *appetite, loss of* (early symptom of hypercalcemia); *thirst, increased* (early symptom of hypercalcemia).

RECTUM: *constipation, severe* (early symptom of hypercalcemia).

BLADDER: *urination, frequency of, increased* (late symptoms of hypercalcemia); *urine, unusually large amount of* (late symptoms of hypercalcemia).

KIDNEYS: *calculi, renal, calcific* (difficult or painful urination) (with oral dosage forms).

CHEST: *fullness or tonic effect in the heart; heartbeat, irregular; heartbeat, fast or slow* (late symptoms of hypercalcemia).

SLEEP: *drowsiness* (late symptom of hypercalcemia).

FEVER: *sensation of warmth or heat.*

PERSPIRATION: *sweating.*

SKIN: *flushing; redness, rash, pain, or burning at injection site; sensitivity of skin to light, increased, especially in hemodialysis patients* (late symptom of hypercalcemia); *sloughing or necrosis of skin.*

GENERALITIES: *hypokalemia; hypomagnesemia; blood pressure, decrease in, moderate* [Calcium Chloride]; *flushing; heartbeat, irregular; hypotension* (dizziness); *redness, rash, pain, or burning at injection site; sensation of warmth or heat; sensation, tingling; blood pressure, high* (late symptom of hypercalcemia); *heartbeat, irregular, fast, or slow* (late symptoms of hypercalcemia); *hypercalcemic syndrome, acute* (drowsiness; continuing nausea and vomiting; weakness); *tiredness or weakness, unusual* (early symptoms of hypercalcemia).

DIAGNOSTIC TESTS: *hypokalemia; hypomagnesemia; calculi, renal, calcific; hypercalcemia.*

Calfactant (Intratracheal-Local)

Commercial name(s): *Infasurf.*

Category: Pulmonary surfactant.

Conventional indications: Respiratory distress syndrome, neonatal (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

THROAT: obstruction, airway.

LARYNX AND TRACHEA: obstruction, airway; reflux of calfactant into the endotracheal tube.

RESPIRATION: obstruction, airway; cyanosis.

CHEST: bradycardia; hemorrhage, intraventricular; leukomalacia, periventricular.

GENERALITIES: bradycardia; cyanosis.

Candesartan (Systemic)

Commercial name(s): *Atacand*.

Category: Antihypertensive.

Conventional indications: Heart failure (treatment); Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *angioedema* (large, hive-like swelling on eyelids).

NOSE: *rhinitis* (stuffy nose).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *pharyngitis* (sore throat); *angioedema* (large, hive-like swelling on throat).

ABDOMEN: *hepatic function, abnormal* (dark urine, light-colored stools, loss of appetite, nausea and vomiting, unusual tiredness, yellow eyes or skin, fever with or without chills, stomach pain).

KIDNEYS: *impairment/failure, renal* (lower back/side pain, decreased frequency/amount of urine, bloody urine, increased thirst, loss of appetite, nausea, vomiting, unusual tiredness or weakness, swelling of face, fingers, lower legs, weight gain, troubled breathing, increased blood pressure).

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: *infection, upper respiratory tract* (coughing; ear congestion or pain; fever; head congestion; nasal congestion; runny nose; sneezing; sore throat).

CHEST: *angina pectoris* (arm, back or jaw pain, chest pain or discomfort, chest tightness or heaviness, fast or irregular heartbeat, shortness of breath, sweating, nausea); *infarction, myocardial* (chest pain or discomfort, pain or discomfort in arms, jaw, back or neck, shortness of breath, nausea, sweating, vomiting); bradycardia (slow heartbeat; as a result of parasympathetic (vagal) stimulation); tachycardia (fast heartbeat).

BACK: *pain*.

EXTREMITIES: *angioedema* (large, hive-like swelling on hands, legs, feet); *gout* (joint pain, lower back or side pain, swelling of feet or lower legs).

SKIN: *pruritus* (itching skin); *urticaria* (hives or welts, itching, redness of skin, skin rash).

GENERALITIES: *hypotension* (dizziness, lightheadedness, or fainting); *infection, upper respiratory tract* (coughing; ear congestion or pain; fever; head congestion; nasal congestion; runny nose; sneezing; sore throat); *agranulocytosis* (cough or hoarseness, fever with or without chills, general feeling of tiredness or weakness, lower back or side pain, painful or difficult urination, sore throat, sores, ulcers, or white spots on lips or in mouth, unusual bleeding or bruising); *gout* (joint pain, lower back or side pain, swelling of feet or lower legs); *hepatitis* (dark urine, general tiredness and weakness, light-colored stools, nausea and vomiting, upper right abdominal pain, yellow eyes and skin); *hyperkalemia* (abdominal pain, confusion, irregular heartbeat, nausea or vomiting, nervousness, numbness or tingling in hands, feet, or lips, shortness of breath, difficult breathing, weakness or heaviness of legs); *hyperuricemia*; *hyponatremia* (coma, confusion, convulsions, decreased urine output, dizziness, fast or irregular heartbeat, headache, increased thirst, muscle pain or cramps, nausea or vomiting, shortness of breath, swelling of

face, ankles, or hands, unusual tiredness or weakness); *infarction, myocardial* (chest pain or discomfort, pain or discomfort in arms, jaw, back or neck, shortness of breath, nausea, sweating, vomiting); *leukopenia* (cough or hoarseness; chills or fever; lower back or side pain; painful or difficult urination); *neutropenia* (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *thrombocytopenia* (nosebleeds or bleeding gums); bradycardia (slow heartbeat; as a result of parasympathetic (vagal) stimulation); tachycardia (fast heartbeat).

DIAGNOSTIC TESTS: *agranulocytosis; hyperkalemia; hyperuricemia; hyponatremia; leukopenia; neutropenia; thrombocytopenia.*

Candesartan and Hydrochlorothiazide (Systemic)

Commercial name(s): *Atacand HCT 16-12.5; Atacand HCT 32-12.5.*

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness or lightheadedness.*

HEAD: *headache.*

EYE: *angioedema* (large, hive-like swelling on eyelid).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: *infection, upper respiratory tract* (cough; fever; sore throat).

CHEST: *angina* (chest pain; chest tightness; fast or irregular heartbeat; shortness of breath); *infarction, myocardial* (chest or arm pain; shortness of breath); arrhythmias, cardiac (accentuated by hypokalemia); bradycardia (slow heartbeat; as a result of parasympathetic (vagal) stimulation); tachycardia (fast heartbeat).

BACK: *pain.*

EXTREMITIES: *angioedema* (large, hive-like swelling on hands, legs, feet).

SKIN: *necrosis, toxic epidermal.*

GENERALITIES: *hypotension* (dizziness, light-headedness, or fainting); *hypokalemia* (dryness of mouth; increased thirst; irregular heartbeat; muscle cramps or pain; nausea or vomiting; unusual tiredness or weakness; weak pulse); *infection, upper respiratory tract* (cough; fever; sore throat); *influenza-like symptoms; blood dyscrasias; infarction, myocardial* (chest or arm pain; shortness of breath); *Stevens-Johnson syndrome*; arrhythmias, cardiac (accentuated by hypokalemia); bradycardia (slow heartbeat; as a result of parasympathetic [vagal] stimulation); dehydration; hypochloremia; hyponatremia; tachycardia (fast heartbeat).

DIAGNOSTIC TESTS: electrolyte imbalance, especially hypokalemia; hypochloremia; hyponatremia.

Capecitabine (Systemic)

Commercial name(s): *Xeloda*.

Category: Antineoplastic.

Conventional indications: Carcinoma, breast (treatment); Carcinoma, colorectal (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: consciousness, loss of; dysarthria (trouble in speaking; slurred speech; changes in patterns and rhythms of speech); dysphasia (loss of ability to use or understand speech or language); confusion (mood or mental changes); depression (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); irritability; sedation (drowsiness; sleepiness; relaxed and calm).

VERTIGO: dizziness; balance, impaired; difficulty in walking; vertigo (dizziness or lightheadedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: accident, cerebrovascular (blurred vision; headache, sudden and severe; inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe); headache.

EYE: conjunctivitis (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing); irritation (red, sore eyes); keratoconjunctivitis (eye redness; irritation; or pain).

NOSE: epistaxis (unexplained nosebleeds).

FACE: edema (swelling of face).

MOUTH: stomatitis (pain, redness, and/or swelling in mouth and on lips; sores or ulcers in mouth and on lips); dysarthria (trouble in speaking; slurred speech; changes in patterns and rhythms of speech); candidiasis, oral.

THROAT: candidiasis, esophageal; dysphagia (difficulty in swallowing); esophagitis; hoarseness (rough, scratchy sound to voice).

STOMACH: appetite, loss of; nausea; pain; vomiting; anorexia (loss of appetite, weight loss); dyspepsia (heartburn); hemorrhage, gastrointestinal (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); toxicity, gastrointestinal tract (abdominal or stomach cramping or pain, severe; bloody or black, tarry stools; constipation or diarrhea, severe; difficulty in swallowing or pain in back of throat or chest when swallowing; vomiting blood or material that looks like coffee grounds); ulcer, gastric (loss of appetite; nausea; stomach bloating, burning, cramping, or pain; vomiting; weight loss); candidiasis, gastrointestinal; gastritis; gastroenteritis (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); hematemesis; motility disorder, gastrointestinal (constipation; full feeling in abdomen; passing less gas; stomach cramps or pain); thirst.

ABDOMEN: **hyperbilirubinemia** (yellow eyes or skin); **pain, abdominal;** *dilation of intestine, toxic* (bloating; constipation; loss of appetite; nausea or vomiting; stomach pain); *fibrosis, hepatic;* *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); *ileus* (abdominal pain, severe constipation, severe vomiting); *toxicity, gastrointestinal tract* (abdominal or stomach cramping or pain, severe; bloody or black, tarry stools; constipation or diarrhea, severe; difficulty in swallowing or pain in back of throat or chest when swallowing; vomiting blood or material that looks like coffee grounds); *ascites* (stomach pain and bloating); *candidiasis, gastrointestinal;* *colitis;* *distension, abdominal* (swelling of abdominal or stomach area; full or bloated feeling or pressure in the stomach); *duodenitis;* *failure, hepatic* (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin); *gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *motility disorder, gastrointestinal* (constipation; full feeling in abdomen; passing less gas; stomach cramps or pain); *enterocolitis, necrotizing;* *obstruction, intestinal.*

RECTUM: **constipation, mild or moderate;** **diarrhea, mild, moderate or severe;** *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); *bleeding, rectal;* *proctalgia* (pain in rectum).

BLADDER: *infection, urinary tract.*

KIDNEYS: *impairment, renal* (lower back/side pain; decreased frequency/amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure); *infection, urinary tract.*

LARYNX AND TRACHEA: *laryngitis* (cough; dryness or soreness of throat; hoarseness; trouble in swallowing; voice changes).

RESPIRATION: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *bronchopneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); *bronchospasm;* *distress, respiratory* (shortness of breath, troubled breathing, tightness in chest, or wheezing); *dyspnea;* *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); *asthma* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing).

COUGH: *hemoptysis* (coughing or spitting up blood); *cough.*

CHEST: *angina pectoris* (chest pain); *bradycardia* (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *bronchopneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); *bronchospasm;* *cardiomyopathy* (fast or irregular heartbeat; shortness of breath or troubled breathing; tiredness or weakness, severe); *cardiotoxicity* (chest pain or discomfort; fast or irregular heartbeat; shortness of breath; swelling of the feet and lower legs; troubled breathing); *effusion, pericardial* (chest pain or discomfort; shortness of breath); *embolism, pulmonary* (shortness of breath or troubled breathing; pain in chest); *extrasystoles, ventricular or not* (extra heartbeats); *fibrillation, atrial* (fast or irregular

heartbeat; dizziness; fainting); hemoptysis (coughing or spitting up blood); mass, chest (unusual lump or swelling in the chest); myocarditis (chest pain or discomfort; fever and chills; fast heartbeat; trouble breathing); pneumonia (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); tachycardia (fast, pounding, or irregular heartbeat or pulse); asthma (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing).

BACK: pain.

EXTREMITIES: **hand-and-foot syndrome** (also known as palmar-plantar erythrodysesthesia or chemotherapy-induced acral erythema) (blistering, peeling, redness, and/or swelling of palms of hands or bottoms of feet; numbness, pain, tingling, or unusual sensations in palms of hands or bottoms of feet); arthralgia (pain in joints; muscle pain or stiffness; difficulty in moving); ataxia (clumsiness or unsteadiness; problems with coordination); edema (swelling of fingers, feet, or lower legs); myalgia (muscle pain); pain in limb; thrombosis, deep vein (hot, red skin on feet or legs; painful, swollen feet or legs); arthritis (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); coordination, abnormal (clumsiness or unsteadiness); pain, bone; tremor (trembling or shaking of hands or feet, shakiness in legs, arms, hands, feet); walking, difficulty in; weakness, muscle.

NAILS: changes in fingernails or toenails; disorder, nail (discoloration of fingernails or toenails).

SLEEP: insomnia (trouble in sleeping); sedation (drowsiness; sleepiness; relaxed and calm).

FEVER: pyrexia (fever).

PERSPIRATION: sweating increased.

SKIN: **dermatitis** (skin rash or itching); photosensitivity (increased sensitivity of skin to sunlight); thrombocytopenic purpura, idiopathic or not (unusual bleeding or bruising; bloody nose; heavier menstrual periods; pinpoint red spots on skin; black, tarry stools; blood in urine; unusual tiredness or weakness; fever; skin rash); discoloration (change in color of treated skin); pruritus (itching skin); ulceration (sores on the skin).

GENERALITIES: **anemia** (unusual tiredness or weakness); **hyperbilirubinemia** (yellow eyes or skin); **lymphopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **neutropenia**; **tiredness, unusual**; **thrombocytopenia**; arthralgia (pain in joints; muscle pain or stiffness; difficulty in moving); coagulation disorder (problems with bleeding or clotting); collapse; dehydration (confusion; decreased urination; dizziness; dry mouth; fainting; increase in heart rate; lightheadedness; rapid breathing; sunken eyes; thirst; unusual tiredness or weakness; wrinkled skin); depression; bone marrow (bleeding and bruising; sore throat and fever; unusual tiredness or weakness); embolism, pulmonary (shortness of breath or troubled breathing; pain in chest); encephalopathy (agitation; back pain; blurred vision; coma; confusion; dizziness; drowsiness; fever; hallucinations; headache; irritability; mood or mental changes; seizures; stiff neck; unusual tiredness or weakness; vomiting); extrasystoles, ventricular or not (extra heartbeats); fatigue; hemorrhage (bleeding gums; coughing up blood; difficulty in breathing or swallowing; dizziness; headache; increased menstrual flow or vaginal bleeding; nosebleeds; paralysis; prolonged bleeding from cuts; red or dark brown urine; red or black, tarry stools; shortness of breath); hepatitis (dark urine; fever; itching; light-

colored stools; pain, tenderness, and/or swelling in upper abdominal area; skin rash; swollen glands; yellow eyes or skin); hepatitis, cholestatic; hypertension (increased blood pressure); hypertriglyceridemia (large amount of triglyceride in the blood); hypokalemia (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); hypomagnesemia (drowsiness; loss of appetite; mood or mental changes; muscle spasms; [tetany] or twitching seizures; nausea or vomiting; trembling; unusual tiredness or weakness); hypotension (decreased blood pressure); infection (cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; sneezing; sore throat; stuffy nose; white spots in mouth or throat); infection, fungal (including candidiasis) (itching in genital or other skin areas; scaling; white patches in the mouth or throat or on the tongue; white patches with diaper rash); infection, viral (chills; cough or hoarseness; fever; cold; flu-like symptoms); leukopenia (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); lymphoedema (swelling of lymph nodes); myalgia (muscle pain); pain; pancytopenia (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); paresthesia (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); phlebitis; radiation recall syndrome (pain and redness of skin at place of earlier radiation treatment); sepsis (chills; confusion; dizziness; lightheadedness; fainting; fast heartbeat; fever; rapid, shallow breathing); tachycardia (fast, pounding, or irregular heartbeat or pulse); thrombocytopenic purpura, idiopathic or not (unusual bleeding or bruising; bloody nose; heavier menstrual periods; pinpoint red spots on skin; black, tarry stools; blood in urine; unusual tiredness or weakness; fever; skin rash); thrombophlebitis; thrombosis, deep vein (hot, red skin on feet or legs; painful, swollen feet or legs); weakness; arthritis (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); ascites (stomach pain and bloating); cachexia (general physical wasting or malnutrition associated with severe illness); fibrosis; hot flushes; influenza-like illness (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); pain, bone; sedation (drowsiness; sleepiness; relaxed and calm); tremor (trembling or shaking of hands or feet, shakiness in legs, arms, hands, feet); walking, difficulty in; weakness, muscle; weight, increased.

DIAGNOSTIC TESTS: **anemia**; **hyperbilirubinemia**; **lymphopenia**; **neutropenia**; **thrombocytopenia**; depression, bone marrow; hypertriglyceridemia; hypokalemia; hypomagnesemia; leukopenia; pancytopenia.

Capreomycin (Systemic)

Commercial name(s): Capastat.

Category: Antibacterial (antimycobacterial).

Conventional indications: Tuberculosis (treatment).

Primary Actions or Pathogenetic Symptoms

EAR: ototoxicity, auditory (any loss of hearing; ringing or buzzing or a feeling of fullness in the ears); ototoxicity, vestibular (clumsiness or unsteadiness; dizziness; nausea or vomiting).

HEARING: ototoxicity, auditory (any loss of hearing; ringing or buzzing or a feeling of fullness in the ears).

KIDNEYS: **nephrotoxicity** (greatly increased or decreased frequency of urination or amount of urine; increased thirst; loss of appetite; nausea; vomiting).

EXTREMITIES: blockade, neuromuscular (difficulty in breathing; drowsiness; unusual tiredness or weakness).

SKIN: hypersensitivity (skin rash; itching; redness; swelling; or fever).

GENERALITIES: blockade, neuromuscular (difficulty in breathing; drowsiness; unusual tiredness or weakness); hypersensitivity (skin rash; itching; redness; swelling; or fever); hypokalemia (irregular heartbeat; loss of appetite; nausea; muscle cramps or pain; unusual tiredness or weakness; vomiting); pain, hardness, unusual bleeding, or a sore at the place of injection.

DIAGNOSTIC TESTS: hypokalemia.

Capsaicin (Topical)

Commercial name(s): *Zostrix; Zostrix-HP*.

Category: Analgesic, specific pain syndromes (topical); Antineuralgic, specific pain syndromes (topical); Antipruritic (topical).

Conventional indications: Neuralgia (treatment); Osteoarthritis (treatment); Rheumatoid arthritis (treatment); Pain, neurogenic, other (treatment); Pruritus, aquagenic (treatment); Pruritus, hemodialysis-induced (treatment).

Primary Actions or Pathogenetic Symptoms

RESPIRATION: *irritation, respiratory* (inhalation of the residue of the dried cream).

COUGH: *cough* (inhalation of the residue of the dried cream).

SKIN: **warm, stinging, or burning sensation at the site of application; elevation of the heat-pain threshold in the treated skin areas.**

GENERALITIES: ***analgesia; warm, stinging, or burning sensation at the site of application; heat-pain threshold in the treated skin areas, elevation of the.***

Carbachol (Ophthalmic)

Commercial name(s): *Carbastat; Carboptic; Isopto Carbachol; Miostat*.

Category: Antiglaucoma agent (ophthalmic) [Carbachol Ophthalmic Solution USP]; Miotic [Carbachol Intraocular Solution USP; Carbachol Ophthalmic Solution USP].

Conventional indications: Miosis induction, during surgery [Carbachol intraocular solution]; Glaucoma, open-angle (treatment) [Carbachol ophthalmic solution]; Glaucoma,

angle-closure (treatment) [Carbachol ophthalmic solution]; Glaucoma, angle-closure, *during* or *after* iridectomy (treatment) [Carbachol ophthalmic solution]; Glaucoma, secondary (treatment) [Carbachol ophthalmic solution]; Hypertension, ocular, postsurgical (treatment) [Carbachol intraocular solution].

Primary Actions or Pathogenetic Symptoms

VERTIGO: *syncope* (fainting).

HEAD: *headache*.

EYE: *hypotension*; *miosis* (constriction of the pupil of the eye); **burning**; **pain**; **stinging**; *irritation*; *redness*; *twitching of eyelids*; *clouding, corneal* (when carbachol intraocular solution was used during cataract surgery); *detachment, retinal* (veil or curtain appearing across part of vision); *iritis, post-operative* (when carbachol intraocular solution was used during cataract surgery); *keratopathy, bullous, persistent* (when carbachol intraocular solution was used during cataract surgery).

VISION: **blurred vision**; **near or distance vision, change in**.

FACE: *flushing or redness*.

MOUTH: *watering of mouth*.

STOMACH: *cramps*; *pain*; *vomiting*.

RECTUM: *diarrhea*.

BLADDER: *urinate, urge to, frequent*.

RESPIRATION: *asthma* (shortness of breath, wheezing, or tightness in chest).

CHEST: *arrhythmia, cardiac* (irregular heartbeat); *asthma* (shortness of breath, wheezing, or tightness in chest)

PERSPIRATION: *sweating, increased*.

GENERALITIES: *arrhythmia, cardiac* (irregular heartbeat); *hypotension* (unusual tiredness or weakness).

Carbamazepine (Systemic)

Commercial name(s): *Apo-Carbamazepine*; *Atretol*; *Carbatrol*; *Epitol*; *Equetro*; *Novo-Carbamaz*; *Nu-Carbamazepine*; *Taro-Carbamazepine*; *Taro-Carbamazepine CR*; *Tegretol*; *Tegretol CR*; *Tegretol Chewtabs*; *Tegretol-XR*.

Category: Anticonvulsant; Antineuralgic (specific pain syndromes); Antimanic; Antidiuretic; Antipsychotic.

Conventional indications: Bipolar disorder (treatment); Epilepsy (treatment); Neuralgia, trigeminal (treatment); Bipolar disorder (prophylaxis); Pain, neurogenic, other (treatment); Diabetes insipidus, central partial (treatment); Alcohol withdrawal (treatment); Psychotic disorders (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **confusion**; *amnesia* (loss of memory; problems with memory); *anxiety* (fear; nervousness); *behavioral changes* (especially in children); *depersonalization* (feeling of unreality; sense of detachment from self or body); *depression* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble

concentrating; trouble sleeping); manic depressive reaction (sudden, wide mood swings); manic reaction (actions that are out of control; irritability; nervousness; talking, feeling, and acting with excitement); suicide ideation or attempt (thoughts or attempts of killing oneself); hostility; lethargy; stupor; restlessness, motor.

VERTIGO: dizziness, mild; lightheadedness; syncope (fainting); dysmetria (poor control in body movements - for example, when reaching or stepping).

HEAD: alopecia (loss of hair); headache; meningitis, aseptic.

EYE: blurred vision; double vision; nystagmus (continuous back-and-forth eye movements); mydriasis (large pupils).

FACE: edema (swelling of face).

MOUTH: dryness; glossitis (irritation or soreness of tongue); speech disorder (difficulty in speaking); stomatitis (irritation or soreness of mouth).

STOMACH: nausea, mild; vomiting, mild; anorexia (loss of appetite); discomfort; dyspepsia (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); pain.

RECTUM: constipation; diarrhea, severe or not.

BLADDER: retention, urinary (sudden decrease in amount of urine); anuria; oliguria.

KIDNEYS: suppression, urine; failure, renal, acute; toxicity, renal or water intoxication (SIADH) (frequent urination; sudden decrease in amount of urine; swelling of feet or lower legs).

URINE: porphyria, acute intermittent (darkening of urine); acetonuria; glycosuria.

GENITALIA MALE: sexual problems.

RESPIRATION: depression, respiratory (irregular, slow, or shallow breathing).

CHEST: pain; arrhythmias (fast, slow, or irregular heartbeat); block, heart, atrioventricular (AV) (unusual weakness; pounding heartbeat; troubled breathing; fainting); bradycardia (slow heartbeat); congestive heart failure (chest pain; troubled breathing; swelling of feet or lower legs; rapid weight gain); hypersensitivity, pulmonary (fever; troubled breathing; cough; shortness of breath; tightness in chest; wheezing); conduction disorders (cardiovascular effect); tachycardia (fast or irregular heartbeat).

BACK: pain; opisthotonus (body spasm in which head and heels are bent backward and body bowed forward) (rebound effect?).

EXTREMITIES: clumsiness; unsteadiness; aching joints or muscles; ataxia (shakiness and unsteady walk; unsteadiness; trembling; or other problems with muscle control or coordination); cramps, leg; edema (swelling of hands, feet, or lower legs); myoclonus; osteopenia; paresthesias or peripheral neuritis (numbness, tingling, pain, or weakness in hands and feet); thrombophlebitis (pain, tenderness, bluish color, or swelling of leg or foot); dysmetria (poor control in body movements, for example, when reaching or stepping); movements, athetoid or ballism (abnormal body movements; chorea); restlessness, motor; twitching, muscular.

SLEEP: drowsiness, mild; somnolence (sleepiness or unusual drowsiness).

PERSPIRATION: diaphoresis (increased sweating).

SKIN: allergic reaction; alopecia (loss of hair); necrolysis, epidermal, toxic (skin rash, hives, or itching); sensitivity to sunlight, increased; pruritus (itching skin); rash.

GENERALITIES: aching joints or muscles; alopecia (loss of hair); asthenia (lack or loss of strength); extrapyramidal symptoms (difficulty in speaking; drooling; loss of balance

control; muscle trembling, jerking, or stiffness; restlessness; shuffling walk; stiffness of limbs; twisting movements of body; uncontrolled movements, especially of face, neck, and back); hyponatremia, dilutional, or water intoxication (SIADH) (confusion, agitation, or hostility, especially in the elderly; continuing headache; increase in seizure frequency; severe nausea and vomiting; unusual drowsiness; weakness); infection (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); injury, accidental; lupus erythematosus (SLE)-like syndrome, systemic (skin rash, hives, or itching; fever; sore throat; bone or joint pain; unusual tiredness or weakness); Stevens-Johnson syndrome; tiredness or weakness, unusual; abnormalities, neurological; adenopathy; agranulocytosis (chills; fever; sore throat; unusual tiredness or weakness); anemia, aplastic (shortness of breath, troubled breathing, wheezing, or tightness in chest; sores, ulcers, or white spots on lips or in mouth; swollen or painful glands; unusual bleeding or bruising); arrhythmias (fast, slow, or irregular heartbeat); blood dyscrasias; bone marrow depression (chills; fever; sore throat; unusual bleeding or bruising); bradycardia (slow heartbeat); CNS toxicity (difficulty in speaking or slurred speech; mental depression with restlessness and nervousness; rigidity; ringing, buzzing, or other unexplained sounds in the ears; trembling; uncontrolled body movements; visual hallucinations); eosinophilia (fever); hepatitis, hypersensitivity (darkening of urine; pale stools; yellow eyes or skin); hypertension, increased (high blood pressure) (rebound effect?); hypocalcemia (increase in seizure frequency; muscle or abdominal cramps); hypotension (low blood pressure); leukopenia (usually asymptomatic; rarely, fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); lymphadenopathy (swollen glands); osteopenia; pancytopenia (nosebleeds or other unusual bleeding or bruising); paresthesias or peripheral neuritis (numbness, tingling, pain, or weakness in hands and feet); stupor; thrombocytopenia (usually asymptomatic; rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); thrombophlebitis (pain, tenderness, bluish color, or swelling of leg or foot); conduction disorders (cardiovascular effect); convulsions (especially in small children); hyperreflexia, followed by hyporeflexia (overactive reflexes, followed by underactive reflexes); leukocytosis; movements, athetoid or ballism (abnormal body movements; chorea); shock (fainting); tachycardia (fast or irregular heartbeat); tremor; twitching, muscular.

DIAGNOSTIC TESTS: hyponatremia; anemia, aplastic; block, heart, atrioventricular (AV); bone marrow depression; eosinophilia (fever); leukopenia; pancytopenia; thrombocytopenia; acetonuria; dysrhythmias, electroencephalogram (EEG); glycosuria; leukocytosis.

Secondary Actions or Rebound Effects: *myoclonus; seizure frequency, increased.*

Carbetocin (Systemic)

Commercial name(s): *Duratocin.*

Category: Oxytocic; Antihemorrhagic (postpartum uterine bleeding); Uterine stimulant.

Conventional indications: Atony, uterine (treatment); Hemorrhage, postpartum (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety* (nervousness).

VERTIGO: *dizziness*.

HEAD: headache.

MOUTH: *taste, metallic*.

STOMACH: nausea; vomiting.

ABDOMEN: pain, abdominal.

GENITALIA FEMALE: *coagulation*; *oxytocic* (uterine stimulant); uterine activity, increased.

RESPIRATION: *dyspnea* (shortness of breath).

CHEST: *pain*; *tachycardia* (fast heartbeat).

BACK: *pain*.

CHILL: *chills*.

PERSPIRATION: *sweating*.

SKIN: pruritus (itching skin).

GENERALITIES: *coagulation*; *flushing* (feeling of warmth); **hypotension** (dizziness; faintness; or light-headedness); **tremor** (trembling); *anemia* (pale skin; unusual tiredness or weakness); *pain*; *tachycardia* (fast heartbeat).

DIAGNOSTIC TESTS: *anemia*.

Carbidopa and Levodopa (Systemic)

Commercial name(s): Apo-Levocarb; Atamet; Nu-Levocarb; Parcopa; Sinemet; Sinemet CR 25-100; Sinemet CR 50-200.

Category: Antidyskinetic.

Conventional indications: Parkinsonism (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **agitation**; **anxiety**; **confusion**; **delusions** (abnormal thinking: holding false beliefs that cannot be changed by fact); **euphoria** (false sense of well-being); **hallucinations** (seeing, hearing, or feeling things that are not there); *depression, mental, with or without suicidal tendencies* (mood or mental changes); *paranoid ideation*; *psychotic episodes*; *consciousness, altered*; *dementia*; *hypomania*; *irritability*; *mania*; *mental status changes*; *panic*.

VERTIGO: **dizziness**; **feeling faint**; *hypotension, orthostatic* (dizziness or lightheadedness when getting up from a lying or sitting position).

HEAD: *headache*.

EYE: *blepharospasm* (increased blinking or spasms of eyelids); *mydriasis* (dilated pupils); *oculogyric crisis* (inability to move eyes).

VISION: *blurred vision*; *diplopia* (double vision).

FACE: *trismus* (difficulty opening mouth); *edema* (swelling of face).

MOUTH: **dryness**; **sialorrhea** (excessive watering of mouth); *burning sensation of tongue*; *saliva, color of, darkening in*; *taste bitter*.

TEETH: bruxism (clenching or grinding of teeth).

THROAT: dysphagia (difficulty swallowing).

STOMACH: anorexia (loss of appetite); **nausea; vomiting; hiccups; bleeding, gastrointestinal** (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds); **ulcer, duodenal** (stomach pain).

ABDOMEN: flatulence (passing gas); **pain, abdominal; bleeding, gastrointestinal** (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds); **ulcer, duodenal** (stomach pain).

RECTUM: constipation; diarrhea; bleeding, gastrointestinal (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds).

BLADDER: incontinence, urinary (loss of bladder control) (rebound effect?); **retention, urinary** (difficult urination).

URINE: darkening in color of urine; myoglobinuria.

GENITALIA MALE: hypersexuality; priapism (prolonged, painful, inappropriate penile erection).

GENITALIA FEMALE: hypersexuality.

RESPIRATION: tachypnea.

CHEST: irregularities, cardiac (fast, irregular, or pounding heart beat); **palpitations** (fast or pounding heart beat); **tachycardia.**

EXTREMITIES: ataxia (clumsiness or unsteadiness); **neuropathy, peripheral** (numbness, burning, tingling, or prickling sensations); **twitching, muscle; edema** (swelling of feet or lower legs); **motor “freezing” or blocks, transient episodes of; phlebitis** (pain, tenderness, or swelling of foot or leg); **rigidity, muscle.**

SLEEP: insomnia (trouble in sleeping).

DREAMS: nightmares.

PERSPIRATION: color of sweat, darkening in; sweating, increased.

SKIN: flushing of skin; skin rash.

GENERALITIES: fatigue (unusual tiredness or weakness); **malaise** (general feeling of discomfort or illness); **neuropathy, peripheral** (numbness, burning, tingling, or prickling sensations); **weakness; hot flashes; hypotension, orthostatic** (dizziness or lightheadedness when getting up from a lying or sitting position); **palpitations** (fast or pounding heart beat); **tiredness or weakness, unusual; twitching, muscle; weight gain or loss, unusual; agranulocytosis** (chills; fever; sore throat; unusual tiredness or weakness); **anemia, hemolytic** (back, leg, or stomach pain; fever; loss of appetite; pale skin; unusual tiredness or weakness); **autonomic dysfunction; edema** (swelling of face; swelling of feet or lower legs; unusual weight gain); **hypertension** (high blood pressure); **hypotension; leukocytosis; motor “freezing” or blocks, transient episodes of; phlebitis** (pain, tenderness, or swelling of foot or leg); **rigidity, muscle; syndrome resembling neuroleptic malignant syndrome** (intermittent dystonia alternating with substantial agitation, hyperthermia and mental changes); **tachycardia.**

DIAGNOSTIC TESTS: darkening in color of urine; agranulocytosis; anemia, hemolytic; creatine phosphokinase elevation; leukocytosis; myoglobin, serum, increased; myoglobinuria.

Secondary Actions or Rebound Effects: **movements, choreiform and/or dystonic** (unusual and uncontrolled movements of the body, including the face, tongue, arms, hands, head, and upper body); **tremor, hand, increased**; *dyskinesias*; *dystonia, generalized*; *movements, involuntary*; *seizures* (convulsions).

Carbidopa, Entacapone and Levodopa (Systemic)

Commercial name(s): *Stalevo 100*; *Stalevo 150*; *Stalevo 50*.

Category: Antidyskinetic.

Conventional indications: Parkinsonism (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation* (anxiety; nervousness; restlessness; irritability; dry mouth; shortness of breath; hyperventilation; trouble sleeping; irregular heartbeats; shaking); *anxiety* (fear; nervousness); *acuity, mental, decreased*; *confusion* (mood or mental changes); *delusions*; *dementia* (poor insight and judgment; problems with memory or speech; trouble recognizing objects; trouble thinking and planning; trouble walking); *depression, with or without development of suicidal tendencies* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); *disorientation* (confusion about identity, place, and time); *euphoria* (false or unusual sense of well-being); *hallucinations*; *impairment, memory* (being forgetful); *nervousness*; *paranoid ideation*; *psychotic episodes* (severe mental changes; hallucinations [seeing, hearing, or feeling things that are not there]).

VERTIGO: **dizziness**; *faintness* (feeling like you will pass out); *gait disorders* (walking in unusual manner); *hypotension, orthostatic* (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position); *syncope* (fainting).

HEAD: *alopecia* (hair loss; thinning of hair); *headache*.

EYE: *angioedema* (large, hive-like swelling on eyelids); *blepharospasm* (increased blinking; twitching of eyelids); *oculogyric crisis* (fixed position of eye); *pupils, dilated* (enlarged pupils).

VISION: *blurred vision*; *diplopia* (double vision; seeing double).

FACE: *angioedema* (large, hive-like swelling on face, lips); *hot flashes* (redness of the face); *trismus* (difficulty opening the mouth; lockjaw; muscle spasm, especially of neck and back).

MOUTH: *dry mouth*; *taste perversion* (bitter, sour or unusual taste in mouth); *angioedema* (large, hive-like swelling on tongue); *burning sensation of the tongue*; *saliva, dark*; *sialorrhea* (excessive watering of mouth).

TEETH: *bruxism* (clenching, gnashing, or grinding teeth).

THROAT: *angioedema* (large, hive-like swelling on throat); *dysphagia* (difficulty swallowing); *hoarseness*; *pain, pharyngeal*.

EXTERNAL THROAT: *hot flashes* (redness of the neck).

STOMACH: **nausea** [Entacapone]; **pain, abdominal** (stomach pain) [Entacapone]; *disorders, gastrointestinal* (abdominal or stomach cramps; discomfort; pain; back pain;

constipation; diarrhea; indigestion; loss of appetite; nausea or vomiting; swollen mouth and tongue; unpleasant taste; urge to have bowel movement; vomiting) [Entacapone]; *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); *gastritis* (burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion) [Entacapone]; *vomiting*; *anorexia* (loss of appetite; weight loss); *bleeding, gastrointestinal* (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe stomach pain; constipation); *heartburn* (pain in the chest below the breastbone; belching; feeling of indigestion); *hiccups*; *pain, gastrointestinal*.

ABDOMEN: *pain, abdominal* (stomach pain) [Entacapone]; *disorders, gastrointestinal* (abdominal or stomach cramps; discomfort; pain; back pain; constipation; diarrhea; indigestion; loss of appetite; nausea or vomiting; swollen mouth and tongue; unpleasant taste; urge to have bowel movement; vomiting) [Entacapone]; *flatulence* (bloated, full feeling; excess air or gas in stomach or intestines; passing gas); *bleeding, gastrointestinal* (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe stomach pain; constipation); *fibrosis, retroperitoneal* (fever; general feeling of illness; loss of appetite; lower abdominal pain; lower back pain; nausea; vomiting); *pain and distress, abdominal*; *pain, gastrointestinal*; *ulcer development, duodenal* (burning and upper abdominal pain; loss of appetite; nausea; vomiting).

RECTUM: *constipation* (difficulty having a bowel movement [stool]); *diarrhea* (rebound effect?); *bleeding, gastrointestinal* (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe stomach pain; constipation).

BLADDER: *frequency, urinary*; *incontinence, urinary* (rebound effect?); *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *retention, urinary*.

KIDNEYS: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *nephrotoxicity, in male rats* (regenerative tubules, thickening of basement membranes, infiltration of mononuclear cells and tubular protein casts).

URINE: *discoloration, urine* [Entacapone]; *dark urine*.

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs); *libido, increased* (increased interest in sexual ability, desire, drive, or performance; increased interest in sexual intercourse); *priapism* (painful or prolonged erection of the penis).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs); *libido, increased* (increased interest in sexual ability, desire, drive, or performance; increased interest in sexual intercourse).

RESPIRATION: *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); *breathing patterns, bizarre*; *infection, upper respiratory tract* (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

COUGH: *cough*.

CHEST: *effusion, pleural* (chest pain; shortness of breath); *hot flashes* (redness of the upper chest); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); *infiltrates, pulmonary* (cough; chest pain; unusual tiredness or weakness); *irregularities, cardiac* (chest pain or

discomfort; fast, irregular, or pounding heart beat; shortness of breath); *pain*; *palpitation* (fast, irregular, pounding, or racing heartbeat or pulse); *thickening, pleural* (shortness of breath; chest pain or tightness).

BACK: *pain*.

EXTREMITIES: *angioedema* (large, hive-like swelling on hands, legs, feet); *ataxia* (shakiness and unsteady walk; unsteadiness, trembling, or other problems with muscle control or coordination); *bradykinetic episodes* (slow movement; slow reflexes); *fluctuations, motor*; *hot flashes* (redness of the arms); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet, unsteadiness or awkwardness); *pain, leg*; *pain, shoulder*; *rhabdomyolysis* (dark-colored urine; fever; muscle pain or stiffness; unusual tiredness or weakness).

SLEEP: *somnolence* (sleepiness or unusual drowsiness); *insomnia* (sleeplessness; trouble sleeping; unable to sleep).

DREAMS: *abnormalities, dream*; *nightmares*.

FEVER: *hyperpyrexia* (fever).

PERSPIRATION: *sweating, increased*; *dark sweat*.

SKIN: *purpura, including Henoch-Schönlein* (pinpoint red or purple spots on skin) [Entacapone]; *alopecia* (hair loss; thinning of hair); *lesions, bullous* (large, hard skin blisters); *melanoma, malignant* (new mole; change in size, shape or color of existing mole; mole that leaks fluid or bleeds); *pruritus* (itching skin); *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *fatigue* (unusual tiredness or weakness); *hypokinesia* (absence of or decrease in body movement) [Entacapone]; *asthenia* (lack or loss of strength); *infection, bacterial* [Entacapone]; *agranulocytosis* (cough or hoarseness; fever with or without chills; general feeling of tiredness or weakness; lower back or side pain; painful or difficult urination; sore throat; sores, ulcers, or white spots on lips or in mouth; unusual bleeding or bruising); *alopecia* (hair loss; thinning of hair); *anemia, hemolytic and non-hemolytic* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); *angioedema* (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs); *bradykinetic episodes* (slow movement; slow reflexes); *edema* (swelling); *extrapyramidal disorder* (difficulty in speaking; drooling; loss of balance control; muscle trembling, jerking, or stiffness; restlessness; shuffling walk; stiffness of limbs; twisting movements of body; uncontrolled movements, especially of face, neck, and back); *failing*; *fluctuations, motor*; *flushing*; *Henoch-Schönlein purpura* (blood in urine; bloody or black, tarry stools; fever; large, flat, blue or purplish patches in the skin; painful knees and ankles; raised red swellings on the skin, the buttocks, legs or ankles; stomach pain); *Horner's syndrome, latent, activation of* (constricted pupil; drooping eyelid (ptosis); and facial dryness); *hot flashes* (feeling of warmth; redness of the face, neck, arms and occasionally upper chest; sudden sweating); *hypertension* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); *hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); *hypotension, orthostatic* (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating;

vomiting); *infection, upper respiratory tract* (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *malaise* (general feeling of discomfort or illness; unusual tiredness or weakness); *neuroleptic malignant syndrome* (convulsions; difficulty in breathing; fast heartbeat; high fever; high or low blood pressure; increased sweating; loss of bladder control; severe muscle stiffness; unusually pale skin; tiredness); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations weakness in arms, hands, legs, or feet, unsteadiness or awkwardness); *numbness*; *palpitation* (fast, irregular, pounding, or racing heartbeat or pulse); *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *phlebitis* (bluish color; changes in skin color; pain, tenderness and swelling of foot or leg); *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *sense of stimulation*; *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *weight gain or loss*.

DIAGNOSTIC TESTS: **discoloration, urine** [Entacapone]; *agranulocytosis*; *anemia*, *hemolytic and non-hemolytic*; *dark urine*; *leukopenia*; *thrombocytopenia*.

Secondary Actions or Rebound Effects: **dyskinesia** (twitching, twisting, uncontrolled repetitive movements of tongue, lips, face, arms, or legs) [Entacapone]; **hyperkinesia** (increase in body movements) [Entacapone]; *convulsions* (seizures); *cramps, muscle*; *tremor, increased*; *twitching, muscle*.

Carbohydrates and Electrolytes (Systemic)

Other commonly used names: Dextrose and Electrolytes, Oral Rehydration Salts, ORS-bicarbonate, ORS-citrate, Rice Syrup Solids and Electrolytes.

Category: Electrolyte replenisher.

Conventional indications: Diarrhea (treatment); Electrolyte depletion (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *puffy eyelids* (symptom of overhydration).

GENERALITIES: *overhydration*.

GENERALITIES: *hypernatremia* (dizziness; fast heartbeat; high blood pressure; irritability; muscle twitching; restlessness; seizures; swelling of feet or lower legs; weakness).

DIAGNOSTIC TESTS: *hypernatremia*.

Carbol-Fuchsin (Topical)

Commercial name(s): *Castellani Paint Modified (Color.*

Category: Antifungal (topical); Drying agent (topical).

Conventional indications: Macerations (treatment adjunct); Phenol nail procedures, postoperative (treatment); Skin and nail infections, fungal, minor (treatment); Tinea pedis (treatment adjunct); Tinea barbae (treatment); Tinea capitis (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *dryness; irritation not present before therapy; stinging, mild, temporary.*

Carbonic Anhydrase Inhibitors (Systemic)

Commercial name(s): *Acetazolam; Ak-Zol; Apo-Acetazolamide; Daranide; Dazamide; Diamox; Diamox Sequels; MZM; Neptazane; Storzolamide.*

Category: Antiglaucoma agent (systemic) [Acetazolamide; Dichlorphenamide; Methazolamide]; Anticonvulsant [Acetazolamide (tablets and injection)]; Altitude sickness (acute) prophylactic and therapeutic agent [Acetazolamide]; Antiparalytic (familial periodic paralysis) [Acetazolamide]; Diuretic, urinary alkalinizing [Acetazolamide (parenteral)]; Antiurolithic (uric acid calculi; cystine calculi) [Acetazolamide Tablets USP].

Conventional indications: Glaucoma, open-angle (treatment); Glaucoma, secondary (treatment); Glaucoma, angle-closure (treatment); Glaucoma, malignant (treatment); Epilepsy, absence seizure pattern (treatment), Epilepsy, tonic-clonic seizure pattern (treatment), Epilepsy, mixed seizure pattern (treatment), Epilepsy, simple partial seizure pattern (treatment) or Epilepsy, myoclonic seizure pattern (treatment) [Acetazolamide]; Altitude sickness (prophylaxis) or Altitude sickness (treatment) [Oral acetazolamide]; Paralysis, familial periodic (treatment) [Acetazolamide]; Toxicity, weakly acidic medications (treatment) [Parenteral acetazolamide]; Renal calculi, uric acid (prophylaxis) or Renal calculi, cystine (prophylaxis) [Oral acetazolamide].

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental; confusion; irritability; nervousness.*

VERTIGO: *dizziness; lightheadedness.*

HEAD: *headache.*

EYE: *hypotension* [Acetazolamide; Dichlorphenamide; Methazolamide]; *sensitivity to sunlight, increased.*

VISION: *nearsightedness.*

HEARING: *ringing or buzzing in ears.*

NOSE: *smell, loss of.*

FACE: *numbness, tingling, or burning in lips.*

MOUTH: *numbness, tingling, or burning in mouth, tongue; taste, metallic; taste, loss of.*

THROAT: *feeling of choking or lump.*

STOMACH: *appetite, loss of; nausea; vomiting.*

ABDOMEN: *jaundice, cholestatic* (darkening of urine, pale stools, yellow eyes or skin).

RECTUM: diarrhea; numbness, tingling, or burning in anus; *constipation* (rebound effect?).

STOOL: black, tarry stools; bloody stools.

BLADDER: *urination, frequency of, increase in; urine, amount of, increase in.*

KIDNEYS: *calculus, renal; nephrotoxicity, sulfonamide-like* (blood in urine, difficult urination, pain in lower back, pain or burning while urinating, sudden decrease in amount of urine).

URINE: *alkaline urine; copious (increased) urine; crystalluria.*

RESPIRATION: *acidosis* (shortness of breath, troubled breathing).

EXTREMITIES: numbness, tingling, or burning in hands, fingers, feet, toes; *clumsiness; unsteadiness; trembling, muscle, severe; weakness, muscle, severe.*

SLEEP: *drowsiness.*

GENERALITIES: feeling of discomfort or illness, general; tiredness or weakness, unusual; weight loss; *acidosis* (shortness of breath, troubled breathing); *blood dyscrasias* (fever and sore throat, unusual bruising or bleeding); *hypersensitivity* (fever, hives, itching, skin rash or sores); *hypokalemia* (dryness of mouth, increased thirst, irregular heartbeats, mood or mental changes, muscle cramps or pain, nausea or vomiting, unusual tiredness or weakness, weak pulse); *jaundice, cholestatic* (darkening of urine, pale stools, yellow eyes or skin); *weakness, muscle, severe.*

DIAGNOSTIC TESTS: *alkaline urine; calculus, renal; crystalluria; acidosis; hypokalemia.*

Secondary Actions or Rebound Effects: *convulsions; trembling, muscle, severe.*

Carboplatin (Systemic)

Commercial name(s): *Paraplatin; Paraplatin-AQ.*

Category: Antineoplastic.

Conventional indications: Carcinoma, ovarian, epithelial (treatment); Carcinoma, breast (treatment); Carcinoma, bladder (treatment); Carcinoma, endometrial (treatment); Carcinoma, esophageal (treatment); Carcinoma, lung, small cell (treatment); Carcinoma, lung, non-small cell (treatment); Carcinoma, head and neck (treatment); Carcinoma, testicular (treatment); Seminoma (treatment); Carcinoma, unknown primary site (treatment); Retinoblastoma (treatment); Tumors, brain, primary (treatment); Lymphomas, Hodgkin's (treatment); Lymphomas, non-Hodgkin's (treatment); Malignant melanoma (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *hair, loss of.*

VISION: *blurred vision.*

EAR: *ototoxicity* (ringing in ears).

MOUTH: *mucositis; stomatitis* (sores in mouth and on lips).

THROAT: *mucositis.*

STOMACH: *nausea; vomiting; appetite, loss of; mucositis.*

ABDOMEN: *mucositis.*

RECTUM: *constipation; diarrhea.*

KIDNEYS: *toxicity, renal, mild.*

EXTREMITIES: *neurotoxicity, peripheral* (numbness or tingling in fingers or toes)

SKIN: *hair, loss of.*

GENERALITIES: **anemia** (unusual tiredness or weakness); **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **neutropenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **pain at site of injection; thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *asthenia* (unusual tiredness or weakness); *allergic reaction* (skin rash or itching; wheezing); *hair, loss of; neurotoxicity, peripheral* (numbness or tingling in fingers or toes).

DIAGNOSTIC TESTS: **anemia; leukopenia; neutropenia; thrombocytopenia.**

Carboprost (Systemic)

Commercial name(s): *Hemabate; Prostin/15M.*

Category: Oxytocic; Abortifacient; Antihemorrhagic (postpartum and postabortal uterine bleeding).

Conventional indications: Abortion; Abortion, incomplete (treatment); Postpartum hemorrhage (treatment); Hydatidiform mole, benign (treatment); Induction of labor; Cervical ripening.

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

FACE: *flushing; redness.*

STOMACH: *nausea; vomiting; cramps; pain.*

ABDOMEN: *ileus, adynamic* (constipation; tender or mildly bloated abdomen).

RECTUM: *diarrhea.*

GENITALIA FEMALE: *abortion; coagulation; oxytocic* (uterine stimulant); *pain, uterine, increased, accompanying abortion* (correlates with efficacy); *endometritis* (continuing chills; shivering; continuing fever - usually on third day after abortion; foul-smelling vaginal discharge; pain in lower abdomen).

RESPIRATION: *bronchoconstriction* (wheezing; trouble in breathing; tightness in chest) (most likely in asthmatic patients).

CHEST: *bradycardia* (slow heartbeat); *bronchoconstriction* (wheezing; trouble in breathing; tightness in chest) (most likely in asthmatic patients); *pressure, substernal* (pressing feeling in chest); *pain, substernal* (painful feeling in chest); *tachycardia* (fast heartbeat).

EXTREMITIES: *vasoconstriction, peripheral, possibly severe* (pale, cool, or blotchy skin on arms or legs; weak or absent pulse in arms or legs).

CHILL: *chills; shivering.*

FEVER: *fever, transient.*

GENERALITIES: *coagulation*; *anaphylaxis*, *generalized* (swelling of face, inside the nose, and eyelids; hives; shortness of breath; trouble in breathing; tightness in chest; wheezing); *bradycardia* (slow heartbeat); *hypertension* (severe and continuing headache) (with very large doses); *inflammation and pain at injection site*; *tachycardia* (fast heartbeat); *vasoconstriction, peripheral, possibly severe* (pale, cool, or blotchy skin on arms or legs; weak or absent pulse in arms or legs).

Secondary Actions or Rebound Effects: *uterine bleeding, unusual increase in.*

Carmustine (Implantation-Local)

Commercial name(s): *Gliadel Wafer.*

Category: Antineoplastic.

Conventional indications: Tumors, brain (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion*; *aphasia* (problems in speaking); *stupor* (extremely severe sleepiness); *amnesia*; *coma*; *depression, mental*; *paranoid reaction*; *thinking, abnormal.*

VERTIGO: *dizziness.*

HEAD: *headache*; *edema, brain*; *hypertension, intracranial* (headache; nausea and vomiting; papilledema); *meningitis* (confusion; fever; headache; stiff neck); *hemorrhage, cerebral*; *hydrocephalus*; *infarct, cerebral.*

EYE: *enlargement, papillary; pain.*

VISION: *diplopia*; *visual field defects.*

THROAT: *dysphagia.*

EXTERNAL THROAT: *pain, neck.*

STOMACH: *nausea*; *vomiting*; *hemorrhage, gastrointestinal.*

ABDOMEN: *hemorrhage, gastrointestinal.*

RECTUM: *constipation*; *diarrhea*; *hemorrhage, gastrointestinal*; *incontinence, fecal.*

BLADDER: *infection, urinary tract* (blood in urine; burning, painful, or difficult urination; lower back or side pain); *incontinence, urinary.*

KIDNEYS: *infection, urinary tract* (blood in urine; burning, painful, or difficult urination; lower back or side pain).

RESPIRATION: *infection, respiratory*; *pneumonia, aspiration*; *slow breathing.*

CHEST: *pain*; *pneumonia, aspiration.*

BACK: *pain.*

EXTREMITIES: *hemiplegia* (inability to move legs or arms); *ataxia*; *edema, peripheral*; *infection, musculoskeletal system*; *monoplegia.*

SLEEP: *drowsiness*; *insomnia.*

FEVER: *fever.*

SKIN: *rash.*

GENERALITIES: *convulsions*; *healing abnormalities, surgical site* (cerebrospinal fluid [CSF] leaks, subdural fluid accumulation, subgaleal effusions, wound breakdown, and wound effusions); *hemiplegia* (inability to move legs or arms); *hypertension, intracranial*

(headache; nausea and vomiting; papilledema); infection, including abscess or meningitis (confusion; fever; headache; stiff neck); pain; stupor (extremely severe sleepiness); allergic reaction; asthenia; ataxia; coma; edema, peripheral; hyperglycemia; hypertension; hypokalemia; hypotension; infection, musculoskeletal system; infection, respiratory; leukocytosis; monoplegia; sepsis; thrombocytopenia.

DIAGNOSTIC TESTS: hyperglycemia; hypokalemia; hyponatremia; leukocytosis; thrombocytopenia.

Carmustine (Systemic)

Commercial name(s): *BiCNU*.

Category: Antineoplastic.

Conventional indications: Tumors, brain, primary (treatment); Carcinoma, gastric (treatment); Carcinoma, colorectal (treatment); Lymphomas, Hodgkin's (treatment); Lymphomas, non-Hodgkin's (treatment); Multiple myeloma (treatment); Melanoma, malignant (treatment); Mycosis fungoides (treatment); Waldenström's macroglobulinemia (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: hair, loss of; encephalomyelopathy.

FACE: flushing.

MOUTH: stomatitis (sores in mouth and on lips).

THROAT: swallowing, trouble in.

STOMACH: nausea; vomiting; appetite, loss of.

ABDOMEN: hepatotoxicity.

RECTUM: diarrhea.

KIDNEYS: failure, renal (decrease in urination; swelling of feet or lower legs); toxicity, renal.

CHEST: fibrosis, pulmonary (cough; shortness of breath); **pneumonitis**; hypoplasia, pulmonary, with upper zone contraction.

BACK: encephalomyelopathy.

SKIN: discoloration of skin along vein of injection; hair, loss of; itching; skin rash.

GENERALITIES: **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **leukopenia**; **phlebitis** (pain or redness at site of injection); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); anemia (unusual tiredness or weakness); hair, loss of; toxicity, central nervous system (CNS) (dizziness; trouble in walking); bone marrow depression (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination; unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); burning at the injection site; death; encephalomyelopathy; thrombosis.

DIAGNOSTIC TESTS: **leukopenia**; **thrombocytopenia**; anemia.

Carvedilol (Systemic)

Commercial name(s): *Coreg*.

Category: Antihypertensive; Congestive heart failure treatment adjunct.

Conventional indications: Congestive heart failure (treatment); Hypertension (treatment); Left ventricular dysfunction, post-myocardial infarction (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental*; consciousness, lapses of.

VERTIGO: *dizziness; syncope* (fainting); *hypotension, postural* (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position); *vertigo* (dizziness or lightheadedness; feeling of constant movement of self or surroundings, sensation of spinning).

HEAD: *cerebrovascular accident* (blurred vision; headache sudden and severe; inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe); *headache*.

EYE: *lacrimation, decreased* (decreased tearing) (in patients who wear contact lenses).

VISION: *abnormal vision* (changes in vision); *blurred vision*.

NOSE: *rhinitis* (stuffy or runny nose).

MOUTH: *periodontitis* (bleeding gums; loose teeth; persistent breath odor or bad taste in your mouth; redness and swelling of gums).

THROAT: *pharyngitis* (sore throat).

STOMACH: *nausea; pain, gastrointestinal* (abdominal or stomach pain; diarrhea; nausea; vomiting); *vomiting*.

ABDOMEN: *injury, hepatic* (pruritus; dark urine; persistent anorexia; yellow eyes or skin; influenza [flu]-like symptoms; right upper quadrant tenderness); *pain, abdominal; pain, gastrointestinal* (abdominal or stomach pain; diarrhea; nausea; vomiting).

RECTUM: *diarrhea, melena* (bloody, black, or tarry stools).

STOOL: *melena* (bloody, black, or tarry stools).

KIDNEYS: *insufficiency, renal* (lower back/side pain; decreased frequency /amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure).

URINE: *albuminuria* (cloudy urine); *glycosuria* (sugar in the urine); *hematuria* (blood in urine).

GENITALIA MALE: *impotence* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection).

RESPIRATION: *dyspnea* (shortness of breath); *rales* (small clicking, bubbling, or rattling sounds in the lung when listening with a stethoscope); bronchospasm; respiratory problems.

COUGH: *increased cough*.

CHEST: *bradycardia* (slow heartbeat); *pain; angina pectoris* (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea); *block, atrioventricular (AV)* (chest pain; dizziness; fainting, pounding, slow heartbeat; troubled breathing; unusual tiredness or weakness); *palpitation*

(irregular heartbeat); *block, bundle branch; ischemia, myocardial*; arrest, cardiac; bronchospasm; insufficiency, cardiac; shock, cardiogenic.

BACK: *pain.*

EXTREMITIES: **edema, peripheral** (swelling of feet, ankles, or lower legs); *arthralgia* (joint pain); *arthritis* (pain, swelling, or redness in joint; muscle pain or stiffness; difficulty in moving); *cramps, muscle; edema, dependent* (swelling of legs and feet); *gout* (ankle, knee or great toe joint pain; joint stiffness or swelling; lower back or side pain); *hypotonia* (unusual weak feeling; loss of strength or energy; muscle pain or weakness); *myalgia* (muscle pain); *vascular disorder, peripheral* (cold hands and feet).

SLEEP: *insomnia* (trouble in sleeping); *somnolence* (sleepiness or unusual drowsiness).

FEVER: *fever.*

PERSPIRATION: *sweating, increased.*

SKIN: *purpura* (pinpoint red or purple spots on skin).

GENERALITIES: **hypotension** (dizziness, lightheadedness, or fainting); **allergy;** **bradycardia** (slow heartbeat); **edema, generalized** (generalized swelling); **fatigue** (unusual tiredness or weakness); **pain; paresthesia** (prickling or tingling sensation); **weight increase;** *albuminuria; arthralgia* (joint pain); *arthritis* (pain, swelling, or redness in joint; muscle pain or stiffness; difficulty in moving); *asthenia* (lack or loss of strength); *cramps, muscle; diabetes mellitus* (blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; loss of consciousness; nausea; stomachache; sweating; troubled breathing; unexplained weight loss; vomiting); *fluid overload* (decrease in amount of urine; noisy, rattling breathing; shortness of breath; swelling of fingers, hands, feet, or lower legs; troubled breathing at rest; weight gain); *flu syndrome* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *glycosuria; gout* (ankle, knee or great toe joint pain; joint stiffness or swelling; lower back or side pain); *hematuria; hypercholesterolemia* (large amount of cholesterol in the blood); *hyperglycemia* (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); *hyperkalemia* (abdominal pain; confusion; irregular heartbeat; nausea or vomiting; nervousness; numbness or tingling in hands, feet, or lips; shortness of breath; difficult breathing; weakness or heaviness of legs); *hyperuricemia* (joint pain, stiffness, or swelling; lower back, side, or stomach pain; swelling of feet or lower legs); *hypervolemia* (blurred vision; cough; dizziness; fast or slow heartbeat; headache; rapid breathing; shortness of breath; swelling of lower legs or arms; weight gain); *hypoglycemia* (anxiety; blurred vision; chills; cold sweats; coma; confusion; cool pale skin; depression; dizziness; fast heartbeat; headache; increased hunger; nausea; nervousness; nightmares; seizures; shakiness; slurred speech; unusual tiredness or weakness); *hyponatremia* (coma; confusion; convulsions; decreased urine output; dizziness; fast or irregular heartbeat; headache; increased thirst; muscle pain or cramps; nausea or vomiting; shortness of breath; swelling of face, ankles, or hands; unusual tiredness or weakness); *hypotension, postural* (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position); *hypotonia* (unusual weak feeling; loss of strength or energy; muscle

pain or weakness); hypovolemia (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); malaise (general feeling of discomfort or illness; unusual tiredness or weakness); myalgia (muscle pain); palpitation (irregular heartbeat); paresthesia (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); thrombocytopenia (unusual bleeding or bruising); vascular disorder, peripheral (cold hands and feet); weight loss; anemia, aplastic (chest pain; chills; cough; fever; headache; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen or painful glands; tightness in chest; unusual bleeding or bruising; unusual tiredness or weakness; wheezing); ischemia, myocardial; seizures, generalized; shock, cardiogenic.

DIAGNOSTIC TESTS: albuminuria; block, atrioventricular (AV); glycosuria; hematuria; hypercholesterolemia; hyperglycemia; hyperkalemia; hyperuricemia; hypoglycemia; hyponatremia; thrombocytopenia; anemia, aplastic; block, bundle branch.

Secondary Actions or Rebound Effects: hypertension (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat).

Caspofungin (Systemic)

Commercial name(s): *Cancidas*.

Category: Antifungal (systemic).

Conventional indications: Aspergillosis, invasive (treatment); Candidiasis, disseminated (treatment); Candidiasis, esophageal (treatment); Candidiasis, intra-abdominal abscesses (treatment); Candidiasis, peritonitis (treatment); Candidiasis, pleural space infections (treatment); Fungal infection, presumed, in febrile neutropenia (treatment).

Primary Actions or Pathogenetic Symptoms

FACE: edema, facial (swelling or puffiness of face).

STOMACH: nausea; vomiting.

ABDOMEN: hyperbilirubinemia (yellow eyes or skin); dysfunction, hepatic (dark urine; light-colored stools; loss of appetite; nausea and vomiting; unusual tiredness; yellow eyes or skin; fever with or without chills; stomach pain).

KIDNEYS: insufficiency, renal (lower back/side pain; decreased frequency/amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure).

RESPIRATION: bronchospasm.

CHEST: bronchospasm.

EXTREMITIES: phlebitis/thrombophlebitis (changes in skin color; pain, tenderness, or swelling of foot or leg); edema, peripheral (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss).

FEVER: fever.

SKIN: rash; pruritus.

GENERALITIES: complications, infused vein (pain or redness at site of injection); **phlebitis/thrombophlebitis** (changes in skin color; pain, tenderness, or swelling of foot or leg); ***anemia*** (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); ***flushing***; ***hyperbilirubinemia*** (yellow eyes or skin); ***hypercalcemia*** (abdominal pain; confusion; constipation; depression; dry mouth; headache; incoherent speech; increased urination; loss of appetite; metallic taste; muscle weakness; nausea; thirst; unusual tiredness; vomiting; weight loss); ***hypokalemia*** (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); ***anaphylaxis***; ***dysfunction, hepatic***; ***edema, peripheral*** (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); ***sensation of warmth***.

DIAGNOSTIC TESTS: ***anemia***; ***hyperbilirubinemia***; ***hypokalemia***; ***dysfunction, hepatic***; ***hypercalcemia***.

Cefditoren (Systemic)

Commercial name(s): *Spectracef*.

Category: Antibacterial (systemic).

Conventional indications: Bacterial exacerbation of chronic bronchitis, acute (treatment); Pharyngitis (treatment); Tonsillitis (treatment); Skin and skin-structure infections, uncomplicated (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness*.

VERTIGO: *dizziness*.

HEAD: *headache*.

NOSE: *rhinitis* (stuffy nose, runny nose, or sneezing); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

MOUTH: *dryness*; *dysgeusia* (taste perversion); *moniliasis, oral* (sore mouth or tongue, white patches in mouth, tongue, or throat); *stomatitis* (swelling or inflammation of the mouth); *ulceration*.

THROAT: *moniliasis, oral* (white patches in throat); *pharyngitis* (body aches or pain, congestion, cough, dryness or soreness of throat, fever, hoarseness, runny nose, tender, swollen glands in neck, trouble in swallowing, or voice changes).

STOMACH: *nausea*; *dyspepsia* (acid or sour stomach, belching, heartburn, indigestion, stomach discomfort, upset or pain); *anorexia* (loss of appetite); *appetite, increased*; *disorder, gastrointestinal*; *eructation* (belching, bloated full feeling, excess air or gas in stomach); *gastritis* (burning feeling in chest or stomach, tenderness in stomach area, stomach upset, or indigestion); *vomiting*.

ABDOMEN: *pain, abdominal*; *colitis, pseudomembranous* (abdominal or stomach cramps; pain; bloating; abdominal tenderness; diarrhea, watery and severe, which may also be

bloody; fever; increased thirst; nausea or vomiting; unusual tiredness or weakness; or unusual weight loss); *disorder, gastrointestinal; flatulence* (passing of gas).

RECTUM: *diarrhea; constipation.*

BLADDER: *urinary frequency.*

GENITALIA FEMALE: *moniliasis, vaginal* (thick, whitish discharge from the vagina or cervical canal); *leukorrhea* (increase in amount of clear vaginal discharge; white vaginal discharge); *vaginitis.*

EXTREMITIES: *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet rapid weight gain, tingling of hands or feet, unusual weight gain or loss); *myalgia* (muscle pain).

SLEEP: *insomnia* (sleeplessness); *somnolence* (sleepiness or unusual drowsiness).

DREAMS: *abnormal dreams.*

FEVER: *fever.*

PERSPIRATION: *sweating.*

SKIN: *pruritus* (itching skin); *rash; urticaria* (hives or welts, itching, redness of skin skin, or rash).

GENERALITIES: *allergic reaction* (itching, pain, redness, or swelling of eye or eyelid; watering of eyes; troubled breathing or wheezing; severe skin rash or hives; flushing; headache; fever; chills; runny nose; increased sensitivity to sunlight; joint pain; swollen glands); *asthenia* (lack or loss of strength); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet rapid weight gain, tingling of hands or feet, unusual weight gain or loss); *hyperglycemia* (blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; loss of consciousness; nausea; stomachache; sweating; troubled breathing; unexplained weight loss; vomiting); *infection, fungal; leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores; ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness, or weakness); *myalgia* (muscle pain); *pain; sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *weight loss.*

DIAGNOSTIC TESTS: *hyperglycemia; leukopenia; thrombocythemia.*

Cefuroxime (Systemic)

Commercial name(s): *Zinacef.*

Category: Antibacterial (Systemic).

Conventional indications: Bone and joint infections (treatment); Gonorrhea (treatment); Lower respiratory tract infections, including pneumonia (treatment); Meningitis (treatment); Septicemia (treatment); Skin and Skin-Structure Infections (treatment); Urinary Tract Infections (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *angioedema* (large, hive-like swelling on eyelids).

HEARING: *loss, hearing, mild to moderate.*

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

STOMACH: *nausea*; *problems, gastrointestinal* (bloating; diarrhea; gas; loss of appetite; nausea; stomach pain; vomiting).

ABDOMEN: *colitis, pseudomembranous, mild to life threatening* (abdominal or stomach cramps; pain; bloating; abdominal tenderness; diarrhea, watery and severe, which may also be bloody; fever; increased thirst; nausea or vomiting; unusual tiredness or weakness; unusual weight loss); *problems, gastrointestinal* (bloating; diarrhea; gas; loss of appetite; nausea; stomach pain; vomiting).

RECTUM: *diarrhea*.

KIDNEYS: *nephritis, interstitial* (bloody or cloudy urine; greatly decreased frequency of urination or amount of urine).

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

EXTREMITIES: *thrombophlebitis* (bluish color; changes in skin color; pain, tenderness, swelling of foot or leg); *angioedema* (large, hive-like swelling on hands, legs, feet).

FEVER: *drug fever*.

SKIN: *pruritus* (itching skin); *urticaria* (hives or welts; itching; redness of skin; skin rash); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red, irritated eyes; sore throat; sores; ulcers or white spots in mouth or on lips; unusual tiredness or weakness); *necrosis, epidermal, toxic* (redness, tenderness, itching, burning, or peeling of skin; red or irritated eyes; sore throat; fever; chills).

GENERALITIES: *eosinophilia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *hypersensitivity reaction* (difficulty in breathing or swallowing; fast heartbeat; shortness of breath; skin itching, rash, or redness; swelling of face, throat, or tongue); *seizure* (muscle spasm or jerking of all extremities; sudden loss of consciousness); *thrombophlebitis* (bluish color; changes in skin color; pain, tenderness, swelling of foot or leg); *agranulocytosis* (cough or hoarseness; fever with or without chills; general feeling of tiredness or weakness; lower back or side pain; painful or difficult urination; sore throat; sores, ulcers, or white spots on lips or in mouth; unusual bleeding or bruising); *anaphylaxis* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *angioedema* (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs); *death*; *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red, irritated eyes; sore throat; sores; ulcers or white spots in mouth or on lips; unusual tiredness or weakness); *leukopenia or neutropenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness

or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red, irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *thrombocytopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness)

DIAGNOSTIC TESTS: *agranulocytosis; leukopenia or neutropenia; pancytopenia; thrombocytopenia.*

Celecoxib (Systemic)

Commercial name(s): *Celebrex.*

Category: Analgesic; Antidysmenorrheal; Antirheumatic (nonsteroidal anti-inflammatory).

Conventional indications: Arthritis, rheumatoid (treatment); Osteoarthritis (treatment); Dysmenorrhea, primary (treatment); Familial adenomatous polyposis [FAP] (treatment); Pain, acute (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; depression; nervousness;* lethargy (unusual feeling of tiredness or weakness); *suicide;* coma.

VERTIGO: *dizziness; vertigo* (dizziness); *syncope.*

HEAD: *headache; alopecia* (hair loss, thinning of hair); *migraine* (headache, severe and throbbing); *cerebrovascular accident* (blurred vision; headache; sudden and severe inability to speak; seizures slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe); *hemorrhage, intracranial* (confusion, headache; sudden severe weakness; nausea and vomiting); *meningitis, aseptic; stroke.*

EYE: *cataract; conjunctivitis* (redness, pain, swelling of eye, eyelid, or inner lining of eyelid burning, dry or itching eyes discharge excessive tearing); *glaucoma* (blindness; blurred vision; decreased vision; eye pain; headache; nausea or vomiting; tearing); *herpes simplex* (burning or stinging of skin painful cold sores or blisters on eyes); *pain; tear abnormality; angioedema* (large, hive-like swelling on eyelids).

VISION: *blurred vision.*

EAR: *earache; otitis media* (earache, redness or swelling in ear).

HEARING: *deafness; tinnitus* (buzzing or ringing noise in ears).

NOSE: *rhinitis* (runny nose); *sinusitis* (stuffy or runny nose; headache); *epistaxis* (bloody nose); *herpes simplex* (burning or stinging of skin painful cold sores or blisters on nose); *anosmia* (loss of sense of smell).

FACE: *edema* (swelling of face); *herpes simplex* (burning or stinging of skin painful cold sores or blisters on lips); *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *dryness; stomatitis* (swelling or inflammation of the mouth); *taste perversion* (change in sense of taste); *ageusia* (loss of sense of taste); *angioedema* (large, hive-like swelling on tongue).

TEETH: disorder, tooth.

THROAT: pharyngitis (pain or burning in throat); dysphagia (difficulty swallowing); esophagitis (pain or burning in throat); angioedema (large, hive-like swelling on throat); perforation, esophageal (chest pain; troubled breathing; swelling of the neck; vomiting).

EXTERNAL THROAT: stiffness, neck.

STOMACH: dyspepsia (heartburn); **nausea; pain;** anorexia (decreased appetite); appetite increased; bleeding or ulceration, gastrointestinal (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds); eructation; gastritis (burning feeling in chest or stomach; tenderness in stomach area); gastroenteritis (severe stomach pain; diarrhea; loss of appetite; nausea; weakness); reflux (heartburn; vomiting); vomiting.

ABDOMEN: flatulence (gas); bleeding or ulceration, gastrointestinal (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds); cholelithiasis (abdominal fullness; gaseous abdominal pain; recurrent fever; yellow eyes or skin); diverticulitis (abdominal pain or tenderness; fever); gastroenteritis (severe stomach pain; diarrhea; loss of appetite; nausea; weakness); hernia, hiatal (heartburn; vomiting); herpes zoster (painful blisters on trunk of body); pain, abdominal; colitis (stomach cramps; tenderness; pain; watery or bloody diarrhea; fever); failure, liver; ileus (abdominal pain; severe constipation; severe vomiting); obstruction, intestinal (abdominal pain, severe constipation; nausea; vomiting); pancreatitis (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); perforation, intestinal (severe abdominal pain, cramping, burning; bloody, black, or tarry stools; trouble breathing; vomiting of material that looks like coffee grounds; severe and continuing nausea, heartburn, and/or indigestion).

RECTUM: diarrhea; bleeding, gastrointestinal (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds); constipation; hemorrhoids (bleeding after defecation uncomfortable swelling around anus); melena; tenesmus (frequent urge to defecate straining while passing stool).

STOOL: melena.

BLADDER: cystitis (bloody or cloudy urine difficult, burning, or painful urination frequent urge to urinate); dysuria (difficult or painful urination burning while urinating); incontinence, urinary (loss of bladder control); infection, urinary tract (pain or burning while urinating); micturition disturbances (trouble in holding or releasing urine; painful urination).

KIDNEYS: infection, urinary tract (pain or burning while urinating); failure, renal, acute; nephritis, interstitial (bloody or cloudy urine; fever, skin rash, swelling of feet or lower legs; greatly decreased frequency of urination or amount of urine).

PROSTATE GLAND: disorder, prostatic.

URINE: albuminuria; hematuria (blood in urine).

GENITALIA MALE: herpes simplex (burning or stinging of skin painful cold sores or blisters on genitals); angioedema (large, hive-like swelling on sex organs).

GENITALIA FEMALE: hemorrhage, vaginal (heavy nonmenstrual vaginal bleeding); herpes simplex (burning or stinging of skin painful cold sores or blisters on genitals); menstrual disorder (painful menstruation; absence of menstruation); vaginitis (itching of

the vagina or genital area; pain during sexual intercourse; thick, white vaginal discharge with no odor or with a mild odor); *angioedema* (large, hive-like swelling on sex organs).

LARYNX AND TRACHEA: *laryngitis* (cough dryness or soreness of throat hoarseness trouble in swallowing voice changes).

RESPIRATION: infection, upper respiratory tract (cough; fever; sneezing; sore throat); *bronchitis* (congestion in chest; cough); *bronchospasm* (cough difficulty breathing noisy breathing shortness of breath tightness in chest wheezing); *dyspnea* (shortness of breath); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest wheezing); depression, respiratory (difficulty breathing).

COUGH: *coughing*.

CHEST: *angina* (arm, back or jaw pain, chest pain or discomfort, chest tightness or heaviness, fast or irregular heartbeat, shortness of breath, sweating, nausea) (rebound effect?); *artery, coronary, disorder* (arm, back or jaw pain, chest pain or discomfort, chest tightness or heaviness, fast or irregular heartbeat, shortness of breath, sweating, nausea); *bronchitis* (congestion in chest; cough); *bronchospasm* (cough difficulty breathing noisy breathing shortness of breath tightness in chest wheezing); *fibroadenosis, breast* (lumps in breasts; painful or tender cysts in the breasts); *herpes zoster* (painful blisters on trunk of body); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting) (rebound effect?); *neoplasm, breast* (abnormal growth in breast); *pain, breast or chest; palpitations* (pounding heartbeat); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest wheezing); *tachycardia* (fast heartbeat); *congestive heart failure* (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing); *embolism, pulmonary* (anxiety; chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness); *fibrillation, ventricular* (fainting; fast, slow, or irregular heartbeat; shortness of breath; unusual tiredness or weakness).

BACK: pain; herpes zoster (painful blisters on trunk of body).

EXTREMITIES: edema (swelling of fingers, feet, and/or lower legs); *bone disorder* (bone deformity; decrease in height; difficulty in moving or walking; headache; loss of hearing; pain in back, ribs, arms, or legs; redness or swelling in arms or legs); *cramps, leg; hypertonia* (excessive muscle tone, muscle tension or tightness, muscle stiffness); *myalgia* (muscle pain); *neuralgia* (nerve pain); *neuropathy* (burning, tingling, numbness or pain in the hands, arms, feet, or legs; sensation of pins and needles; stabbing pain); *synovitis* (joint or muscle pain or stiffness); *tendonitis* (joint pain or stiffness); *angioedema* (large, hive-like swelling on hands, legs, feet); *ataxia* (shakiness and unsteady walk, unsteadiness; trembling, or other problems with muscle control or coordination); *gangrene, peripheral* (cold, pale or a bluish color skin of the fingers or toes; itching skin; numbness or tingling of the fingers or toes; pain in the fingers or toes); *thrombophlebitis* (changes in skin color; pain, tenderness, swelling of foot or leg); *thrombosis, deep venous* (pain, redness, or swelling in arm or leg).

NAILS: *disorder, nail*.

SLEEP: insomnia (inability to sleep); somnolence (sleepiness); drowsiness.

FEVER: fever.

PERSPIRATION: increased sweating.

SKIN: skin rash; alopecia (hair loss, thinning of hair); cellulitis (itching pain redness swelling tenderness warmth on skin); dermatitis (blistering, crusting, irritation, itching, or reddening of skin cracked, dry, scaly skin swelling); disorder, skin; dryness; nodule (small lumps under the skin); photosensitivity reaction (increased sensitivity of skin to sunlight; itching; redness or other discoloration of skin; severe sunburn; skin rash); pruritus; urticaria (hives or welts; itching; redness of skin; skin rash); dermatitis, exfoliative (cracks in the skin; loss of heat from the body; red, swollen skin; scaly skin); erythema multiforme (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); necrosis, epidermal, toxic (redness, tenderness, itching, burning, or peeling of skin; red irritated eyes; sore throat; fever; chills); vasculitis (redness, soreness or itching skin; fever; sores, welting or blisters).

GENERALITIES: pain absence; infection, upper respiratory tract (cough; fever; sneezing; sore throat); **sinusitis** (stuffy or runny nose; headache); albuminuria; allergic reaction (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness, wheezing); alopecia (hair loss, thinning of hair); anemia (pale skin, troubled breathing with exertion, unusual bleeding or bruising, unusual tiredness or weakness); arthralgia (joint or muscle pain or stiffness); arthrosis (degenerative disease of the joint); asthenia (loss of energy or weakness); bone disorder (bone deformity; decrease in height; difficulty in moving or walking; headache; loss of hearing; pain in back, ribs, arms, or legs; redness or swelling in arms or legs); cyst; diabetes mellitus (blurred vision dry mouth fatigue flushed, dry skin fruit-like breath odor increased hunger increased thirst increased urination loss of consciousness nausea stomachache sweating troubled breathing unexplained weight loss vomiting); ecchymosis (bruising large, flat, blue or purplish patches in the skin); fatigue (unusual tiredness); hematuria; herpes simplex (burning or stinging of skin painful cold sores or blisters on lips, nose, eyes, or genitals); herpes zoster (painful blisters on trunk of body); hot flashes (sudden sweating and feelings of warmth); hypercholesterolemia (large amount of cholesterol in the blood); hyperglycemia (abdominal pain, blurred vision dry mouth fatigue flushed, dry skin fruit-like breath odor increased hunger increased thirst increased urination nausea sweating troubled breathing unexplained weight loss vomiting); hypertension (high blood pressure; dizziness; headache, severe or continuing); hypertonia (excessive muscle tone, muscle tension or tightness, muscle stiffness); hypoesthesia (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); hypoglycemia (anxiety; blurred vision; chills; cold sweats; coma; confusion; cool, pale skin; depression; dizziness; fast heartbeat; headache; increased hunger; nausea; nervousness; nightmares; seizures; shakiness; slurred speech; unusual tiredness or weakness); hypokalemia (abdominal pain confusion irregular heartbeat nausea or vomiting nervousness numbness or tingling in hands, feet, or lips shortness of breath difficult breathing weakness or heaviness of legs); hyponatremia (coma; confusion; convulsions; decreased urine output; dizziness; fast or irregular heartbeat; headache; increased thirst; muscle pain or cramps; nausea or

vomiting; shortness of breath; swelling of face, ankles, or hands; unusual tiredness or weakness); infarction, myocardial (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting) (rebound effect?); infection, bacterial, fungal, soft tissue or viral (confusion; fever; headache; stiff neck); influenza-like symptoms (chills; fever; muscle aches and pains); injection, site reaction (bleeding, blistering, burning, coldness, discoloration of skin, feeling of pressure, hives, infection, inflammation, itching, lumps, numbness, pain, rash, redness, scarring, soreness, stinging, swelling, tenderness, tingling, ulceration, or warmth at site); leukopenia (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); moniliasis (skin rash; cracks in skin at the corners of mouth; soreness or redness around fingernails and toenails); myalgia (muscle pain); neoplasm, breast (abnormal growth in breast); neuralgia (nerve pain); neuropathy (burning, tingling, numbness or pain in the hands, arms, feet, or legs sensation of pins and needles stabbing pain); palpitations (pounding heartbeat); paresthesias (numbness or tingling in fingers and/or toes); synovitis (joint or muscle pain or stiffness); tachycardia (fast heartbeat); thrombocythemia (pain, warmth, or burning in fingers, toes and legs, headache, dizziness, problems with vision or hearing with vision or hearing); weight gain, unusual; agranulocytosis (cough or hoarseness; fever with or without chills; general feeling of tiredness or weakness; lower back or side pain; painful or difficult urination; sore throat; sores, ulcers, or white spots on lips or in mouth; unusual bleeding or bruising); anaphylactoid reaction (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); anemia, aplastic (chest pain; chills; cough; fever; headache; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen or painful glands; tightness in chest; unusual bleeding or bruising; unusual tiredness or weakness; wheezing); angioedema (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs); death; erythema multiforme (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); gangrene, peripheral (cold, pale or a bluish color skin of the fingers or toes; itching skin; numbness or tingling of the fingers or toes; pain in the fingers or toes); hepatitis (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); jaundice (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); pancreatitis (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); pancytopenia (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); sepsis (chills; confusion; dizziness; lightheadedness; fainting; fast heartbeat; fever; rapid, shallow breathing); Stevens-Johnson syndrome (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a

purple center sore throat sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *thrombophlebitis* (changes in skin color; pain, tenderness, swelling of foot or leg); *thrombosis, deep venous* (pain, redness, or swelling in arm or leg); *vasculitis* (redness, soreness or itching skin; fever; sores, welting or blisters); coma.

DIAGNOSTIC TESTS: *albuminuria*; *anemia*; *cholelithiasis*; *hematuria*; *hypercholesterolemia*; *hyperglycemia*; *hypoglycemia*; *hypokalemia*; *hyponatremia*; *leukopenia*; *thrombocythemia*; *agranulocytosis*; *anemia, aplastic*; *pancytopenia*.

Secondary Actions or Rebound Effects: *arthralgia* (joint or muscle pain or stiffness); *arthrosis* (degenerative disease of the joint); *dysmenorrhea* (pain, cramps, heavy bleeding).

Cellulose Sodium Phosphate (Systemic)

Commercial name(s): *Calcibind*.

Category: Antiurrolithic (calcium calculi).

Conventional indications: Renal calculi, calcium (prophylaxis).

Primary Actions or Pathogenetic Symptoms

STOMACH: discomfort.

ABDOMEN: discomfort, abdominal; movements, bowel, loose.

RECTUM: diarrhea.

GENERALITIES: *hypomagnesemia* (drowsiness; loss of appetite; mood or mental changes; muscle spasms [tetany] or twitching; seizures; nausea or vomiting; trembling; unusual tiredness or weakness) (with long-term use).

DIAGNOSTIC TESTS: *hypomagnesemia*.

Cephalosporins (Systemic)

Commercial name(s): *Ancef*; *Apo-Cefaclor*; *Apo-Cephalex*; *Ceclor*; *Ceclor CD*; *Cedax*; *Cefadyl*; *Cefizox*; *Cefobid*; *Cefotan*; *Ceftin*; *Cefzil*; *Ceporacin*; *Ceptaz*; *Claforan*; *Duricef*; *Fortaz*; *Keflex*; *Keflin*; *Keftab*; *Kefurox*; *Kefzol*; *Mandol*; *Maxipime*; *Mefoxin*; *Monocid*; *Novo-Lexin*; *Nu-Cephalex*; *Omnicef*; *PMS-Cephalexin*; *Rocephin*; *Spectracef* ; *Suprax*; *Tazicef*; *Tazidime*; *Vantin*; *Velosef*; *Zinacef*.

Category: Antibacterial (systemic).

Conventional indications: Biliary tract infections (treatment) [Cefazolin]; Bone and joint infections (treatment) [Cefaclor, cefadroxil, cefamandole, cefazolin, cefixime, cefonicid, cefoperazone, cefotaxime, cefotetan, cefoxitin, cefpodoxime, cefprozil, ceftazidime, ceftizoxime, ceftriaxone, cefuroxime, cephalixin, cephalothin, cephapirin, and cephradine]; Bronchitis (treatment) [Cefaclor, cefixime, cefprozil, and cefuroxime axetil]; Bronchitis, bacterial exacerbations (treatment) [Cefaclor, cefdinir, cefditoren, cefepime, cefixime, cefpodoxime, cefprozil, ceftibuten, and cefuroxime axetil]; Endocarditis, bacterial (treatment) [Cefazolin, cephalothin, cephapirin, and cephradine]; Genitourinary tract

infections (treatment) [Cefazolin, cefoperazone, cefotaxime, cephalixin, cephalothin, and cephradine]; Gonorrhea, disseminated (treatment) [Cefuroxime]; Gonorrhea, uncomplicated (treatment) [Cefixime, cefotaxime, cefpodoxime, ceftizoxime, ceftriaxone, cefuroxime, and cefuroxime axetil]; Impetigo (treatment) [Cefadroxil, cefuroxime axetil, and cephalixin]; Intraabdominal infections (treatment) [Cefamandole, cefepime, cefoperazone, cefotaxime, cefotetan, cefoxitin, ceftazidime, ceftizoxime, ceftriaxone, and cephalothin]; Lyme disease (treatment) [Cefotaxime, ceftriaxone, and cefuroxime axetil]; Meningitis (treatment) [Cefotaxime, ceftazidime, ceftizoxime, ceftriaxone, and cefuroxime]; Neutropenia, febrile (treatment) [Cefepime and ceftazidime]; Otitis media (treatment) [Cefaclor, cefadroxil, cefazolin, cefdinir, cefixime, cefpodoxime, cefprozil, ceftibuten, ceftriaxone, cefuroxime axetil, cephalixin, cephalothin, cephapirin, and cephradine]; Pelvic infections, female (treatment) [Cefoperazone, cefotaxime, cefotetan, cefoxitin, cefpodoxime, ceftazidime, ceftizoxime, and ceftriaxone]; Perioperative infections (prophylaxis) [Cefamandole, cefazolin, cefonicid, cefotaxime, cefotetan, cefoxitin, ceftriaxone, cefuroxime, cephalothin, and cephapirin]; Pharyngitis, bacterial (treatment) or Tonsillitis (treatment) [Cefaclor, cefadroxil, cefdinir, cefditoren, cefixime, cefpodoxime, cefprozil, ceftibuten, cefuroxime axetil, cephalixin, and cephradine]; Pneumonia, bacterial (treatment) [Cefaclor, cefadroxil, cefamandole, cefazolin, cefdinir, cefepime, cefotaxime, cefoxitin, cefpodoxime, cefprozil, ceftazidime, ceftriaxone, cefuroxime, cefuroxime axetil, cephalothin, and cephradine]; Pulmonary infections, in cystic fibrosis (treatment) [Cefaclor, cefamandole, and ceftazidime]; Septicemia, bacterial (treatment) [Cefamandole, cefazolin, cefepime, cefonicid, cefoperazone, cefotaxime, cefotetan, cefoxitin, ceftazidime, ceftizoxime, ceftriaxone, cefuroxime, cephalothin, cephapirin, and cephradine]; Sinusitis (treatment) [Cefdinir, cefixime, cefprozil, and cefuroxime axetil]; Skin and soft tissue infections (treatment) [Cefaclor, cefadroxil, cefamandole, cefazolin, cefdinir, cefditoren, cefepime, cefixime, cefonicid, cefoperazone, cefotaxime, cefotetan, cefoxitin, cefpodoxime, cefprozil, ceftazidime, ceftizoxime, ceftriaxone, cefuroxime, cefuroxime axetil, cephalixin, cephalothin, cephapirin, and cephradine]; Urinary tract infections, bacterial (treatment) [Cefaclor, cefadroxil, cefamandole, cefazolin, cefepime, cefixime, cefonicid, cefoperazone, cefotaxime, cefotetan, cefoxitin, cefpodoxime, cefprozil, ceftazidime, ceftizoxime, ceftriaxone, cefuroxime, cefuroxime axetil, cephalixin, cephalothin, cephapirin, and cephradine]; Ventriculitis (treatment) [Cefotaxime]; Endocarditis, bacterial (prophylaxis) [Cefadroxil, cefazolin, and cephalixin]; Melioidosis (treatment) [Ceftazidime]; Sinusitis, amoxicillin-resistant (treatment) [Cefaclor].

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *angioedema* (large, hive-like swelling on eyelids) [Cefuroxime].

HEARING: *loss, hearing* (in pediatric patients being treated for meningitis; more frequently with cefuroxime).

FACE: *angioedema* (large, hive-like swelling on face, lips) [Cefuroxime].

MOUTH: *candidiasis, oral* (sore mouth or tongue); *angioedema* (large, hive-like swelling on tongue) [Cefuroxime].

THROAT: *angioedema* (large, hive-like swelling on throat) [Cefuroxime].

STOMACH: **nausea; vomiting;** *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); *stomach cramps and pain, severe*.

ABDOMEN: **cramps, abdominal;** *colitis, pseudomembranous* (abdominal or stomach cramps and pain, severe; abdominal tenderness; diarrhea, watery and severe, which may also be bloody; fever); *flatulence* (bloated full feeling; excess air or gas in stomach or intestines; passing gas); *abdominal cramps and pain, severe; abdominal tenderness; biliary "sludge" or pseudolithiasis* (anorexia; epigastric pain; nausea and vomiting) [Ceftriaxone]; *dysfunction, hepatic, including cholestasis* (abdominal or stomach pain; chills; clay-colored stools; dark urine; diarrhea; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin).

RECTUM: **diarrhea, mild;** *diarrhea, watery and severe, which may also be bloody*.

STOOL: **changes in stool** [Cefixime].

KIDNEYS: *dysfunction, renal* (decrease in urine output or decrease in urine-concentrating ability); *nephropathy, toxic* (bloody or cloudy urine; difficult or painful urination; sudden decrease in amount of urine).

GENITALIA MALE: *pruritus, genital* (itching or pain of the genital area) [Cefixime]; *angioedema* (large, hive-like swelling on sex organs) [Cefuroxime].

GENITALIA FEMALE: **candidiasis, vaginal** (vaginal itching and discharge); *pruritus, genital* (itching or pain of the genital area) [Cefixime]; *vaginitis* (itching of the vagina or genital area; pain during sexual intercourse; thick, white vaginal discharge with no odor or with a mild odor); *angioedema* (large, hive-like swelling on sex organs) [Cefuroxime].

EXTREMITIES: *angioedema* (large, hive-like swelling on hands, legs, feet) [Cefuroxime].

FEVER: *drug fever; fever*.

SKIN: *pruritus* (itching skin); *skin rash; urticaria* (hives or welts; itching; redness of skin; skin rash); *erythema multiforme* (blistering, peeling, or loosening of skin and mucous membranes, which may involve the eyes or other organ systems); *necrolysis, epidermal, toxic* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

GENERALITIES: **eosinophilia** (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *hypersensitivity reactions* (fever; skin itching, rash, or redness; swelling) (more commonly with cefazolin); *hypoprotrombinemia* (unusual bleeding or bruising) (more frequent for Cefamandole, Cefoperazone, and Cefotetan); *thrombophlebitis* (pain, redness, and swelling at site of injection); *anaphylaxis* (bronchospasm; hypotension); *agranulocytosis* (cough or hoarseness; fever with or without chills; general feeling of tiredness or weakness; lower back or side pain; painful or difficult urination; sore throat; sores, ulcers, or white spots on lips or in mouth; unusual bleeding or bruising); *anemia, aplastic* (chest pain; chills; cough; fever; headache; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen or painful glands; tightness in chest; unusual bleeding or bruising; unusual tiredness or weakness; wheezing); *anemia, hemolytic, immune, drug-induced* (unusual tiredness or weakness; yellowing of the eyes or skin) (more

commonly with Cefotetan); *angioedema* (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs) [Cefuroxime]; *erythema multiforme* (blistering, peeling, or loosening of skin and mucous membranes, which may involve the eyes or other organ systems); *hemorrhage* (bleeding gums; coughing up blood; difficulty in breathing or swallowing; dizziness; headache; increased menstrual flow or vaginal bleeding; nosebleeds; paralysis; prolonged bleeding from cuts; red or dark brown urine; red or black, tarry stools; shortness of breath); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *neutropenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *seizures*; *serum sickness-like reactions* (fever; joint pain; skin rash) (more frequent with Cefaclor); *Stevens-Johnson syndrome* (blistering, peeling, or loosening of skin and mucous membranes, which may involve the eyes or other organ systems); *superinfection* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *thrombocytopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *eosinophilia*; *hypoprothrombinemia*; *agranulocytosis*; *anemia, aplastic*; *anemia, hemolytic, immune*; *leukopenia*; *neutropenia*; *pancytopenia*; *pseudolithiasis* [Ceftriaxone]; *thrombocytopenia*.

Cetirizine and Pseudoephedrine (Systemic)

Commercial name(s): Zyrtec-D 12 Hour.

Category: Antihistaminic, H₁-receptor-decongestant.

Conventional indications: Rhinitis, seasonal allergic (treatment); Rhinitis, perennial allergic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *excitability* [Pseudoephedrine]; *nervousness* [Pseudoephedrine]; *restlessness*; anxiety [Pseudoephedrine]; coma [Pseudoephedrine]; irritability [Cetirizine]; psychosis, toxic, with delusions and hallucination (changes in mood; confusion; irrational behavior; depersonalization hallucinations).

VERTIGO: *dizziness* [Cetirizine]; giddiness [Pseudoephedrine].

HEAD: *headache* [Pseudoephedrine].

FACE: *dyskinesia, orofacial* (twitching, twisting, or uncontrolled repetitive movements of face) [Cetirizine].

MOUTH: *dryness* [Cetirizine].

THROAT: *pharyngitis* (soreness of throat) [Cetirizine].

STOMACH: *nausea* [Pseudoephedrine]; *thirst* [Pseudoephedrine]; *vomiting* [Pseudoephedrine].

ABDOMEN: *cholestasis* (stomach pain; light-colored stools; dark urine; diarrhea; fever; vomiting of blood; yellow eyes or skin) [Cetirizine].

BLADDER: *micturition, difficulty in (difficulty in urination)* [Pseudoephedrine].

KIDNEYS: *glomerulonephritis* (bloody or cloudy urine; increased blood pressure; sudden decrease in amount of urine; swelling of face, fingers, feet, and/or lower legs; rapid weight gain) [Cetirizine].

GENITALIA FEMALE: *stillbirth* [Cetirizine].

RESPIRATION: *failure, respiratory (difficult or troubled breathing; irregular, fast or slow, or shallow breathing; shortness of breath)* [Pseudoephedrine].

CHEST: *arrhythmias, cardiac* [Pseudoephedrine]; *palpitation* (fast, irregular, pounding, or racing heartbeat or pulse) [Pseudoephedrine]; *tachycardia* (fast, irregular, pounding, or racing heartbeat or pulse) [Pseudoephedrine]; *pain, precordial (chest and/or abdominal pain)* [Pseudoephedrine].

EXTREMITIES: *weakness and tenseness, muscular* [Pseudoephedrine].

SLEEP: *somnolence* (sleepiness or unusual drowsiness; extreme tiredness) [Cetirizine]; *drowsiness* [Pseudoephedrine]; *insomnia* [Pseudoephedrine].

PERSPIRATION: *sweating* [Pseudoephedrine].

GENERALITIES: *fatigue* (weakness) [Cetirizine]; *anaphylaxis* (skin rash or hives; troubled breathing; swollen mouth or throat) [Cetirizine]; *anemia, hemolytic* (back, leg, or stomach pains; bleeding gums; dark urine; fatigue; fever; general body swelling; nosebleeds; pale or yellow skin or eyes) [Cetirizine]; *arrhythmias, cardiac* [Pseudoephedrine]; *CNS stimulation, mild* (in hypersensitive patients) (nervousness, excitability, restlessness, dizziness, weakness, or insomnia) [Pseudoephedrine]; *collapse, cardiovascular* [Pseudoephedrine]; *convulsions* [Pseudoephedrine]; *hepatitis* [Cetirizine]; *hypotension, severe* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position; sudden sweating; unusual tiredness or weakness) [Cetirizine]; *palpitation* (fast, irregular, pounding, or racing heartbeat or pulse) [Pseudoephedrine]; *pressor activity* [Pseudoephedrine]; *tachycardia* (fast, irregular, pounding, or racing heartbeat or pulse) [Pseudoephedrine]; *thrombocytopenia* (black, tarry stools; chest pain; chills; swollen glands; unusual bleeding or bruising) [Cetirizine]; *weakness* [Pseudoephedrine]; *coma* [Pseudoephedrine]; *convulsions* [Pseudoephedrine]; *weakness and tenseness, muscular* [Pseudoephedrine].

DIAGNOSTIC TESTS: *anemia, hemolytic* [Cetirizine]; *thrombocytopenia* [Cetirizine].

Cetrorelix (Systemic)

Commercial name(s): *Cetrotide*.

Category: Infertility.

Conventional indications: Infertility, female (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache*.

STOMACH: *nausea.*

GENITALIA FEMALE: *inhibition of GnRH and LH* (ovulation inhibitors); *ovarian hyperstimulation syndrome (OHSS)* (abdominal or stomach pain; continuing or severe nausea, vomiting or diarrhea; decreased amount of urine; feeling of indigestion; moderate to severe bloating; rapid weight gain; severe pelvic pain; shortness of breath; swelling of lower legs); *stillbirth.*

SKIN: *reactions, local site* (bruising; erythema; itching; pruritus; redness; swelling; they are usually mild and transient).

GENERALITIES: *ovarian hyperstimulation syndrome (OHSS)* (abdominal or stomach pain; continuing or severe nausea, vomiting or diarrhea; decreased amount of urine; feeling of indigestion; moderate to severe bloating; rapid weight gain; severe pelvic pain; shortness of breath; swelling of lower legs); *reactions, local site* (bruising; erythema; itching; pruritus; redness; swelling; they are usually mild and transient).

Cetuximab (Systemic)

Commercial name(s): *Erbitux.*

Category: Antineoplastic; Monoclonal antibody.

Conventional indications: Carcinoma, colorectal (treatment); Malignant tumor of head and neck, relapsed/refractory (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **depression** (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping).

HEAD: **alopecia** (hair loss, thinning of hair); **headache.**

EYE: **conjunctivitis** (redness, pain, swelling of eye, eyelid, or inner lining of eyelid burning; dry or itching eyes; discharge; excessive tearing).

FACE: **edema** (bloating or swelling of face).

MOUTH: **stomatitis** (swelling or inflammation of the mouth).

STOMACH: **anorexia** (loss of appetite, weight loss); **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); **nausea; vomiting.**

ABDOMEN: **pain, abdominal.**

RECTUM: **constipation** (difficulty having a bowel movement (stool)); **diarrhea.**

KIDNEYS: *failure, kidney.*

RESPIRATION: **dyspnea** (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); *lung disease, interstitial* (cough; difficult breathing; fever; shortness of breath).

COUGH: **cough increased.**

CHEST: *embolism, pulmonary* (anxiety; chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness); *lung disease, interstitial* (cough; difficult breathing; fever; shortness of breath).

BACK: **pain.**

EXTREMITIES: **edema, peripheral** (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet, unusual weight gain or loss)

NAILS: disorder, nail (discoloration and swelling of fingernails or toenails).

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep).

FEVER: fever.

SKIN: alopecia (hair loss, thinning of hair); **drying and fissuring, severe** (severe dry skin; deep cracks, grooves or lines in skin); **pruritus** (itching skin); **rash, acneform** (blemishes on the skin, pimples).

GENERALITIES: alopecia (hair loss, thinning of hair); **anemia** (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); **asthenia** (lack or loss of strength); **edema, peripheral** (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet, unusual weight gain or loss); **immunogenicity; infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **infusion reaction** (dizziness; fever or chills; facial swelling; headache; nausea or vomiting; shortness of breath; skin rash, weakness); **pain; weight loss; dehydration** (confusion; decreased urination; dizziness; dry mouth; fainting; increase in heart rate; lightheadedness; rapid breathing; sunken eyes; thirst; unusual tiredness or weakness; wrinkled skin); **leukopenia** (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); **sepsis** (chills; confusion; dizziness; lightheadedness; fainting fast heartbeat; fever; rapid, shallow breathing).

DIAGNOSTIC TESTS: anemia; leukopenia.

Cevimeline (Systemic)

Commercial name(s): *Evoxac*.

Category: Cholinergic enhancer.

Conventional indications: Xerostomia in Sjögren's syndrome (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: depression (mood or mental changes); *crying, abnormal*; confusion, mental.

VERTIGO: vertigo (feeling of constant movement of self or surroundings; dizziness or light-headedness); *syncope* (fainting or light-headedness when getting up from a lying or a sitting position).

HEAD: migraine; headache.

EYE: abnormality, eye; conjunctivitis (burning, dry or itching feeling in eye; redness, pain, and swelling of eye, eyelid, or inner lining of eye); *infection* (eye pain or; redness or; blurred vision); *pain; xerophthalmia* (dry or itching eyes; redness or pain in eye) (rebound effect?); lacrimation (tearing of the eyes).

VISION: abnormal vision (change in vision); disturbance, visual (blurring or loss of vision; disturbed color perception).

EAR: earache; otitis media (earache; ringing or buzzing in ears).

NOSE: rhinitis (runny or stuffy nose); *epistaxis* (bloody nose).

FACE: pain, salivary gland (pain on side of face and jaw); *sialoadenitis* (swollen, tender, or painful swelling on side of face and jaw); *edema* (swelling or puffiness of face).

MOUTH: dryness; enlargement, salivary gland (swelling on side of face and jaw); pain, salivary gland (pain on side of face and jaw); salivation, excessive; sialoadenitis (swollen, tender, or painful swelling on side of face and jaw); stomatitis, ulcerative (sores, ulcers, or white spots on tongue, lips, or inside of mouth); edema (swelling of the gums and tongue).

TEETH: disorder, tooth; pain.

THROAT: choking.

STOMACH: nausea; anorexia (loss of appetite; weight loss); eructation (belching); hiccups; reflux, gastroesophageal (heartburn; vomiting); vomiting; spasm, gastrointestinal (stomach cramps or pain).

ABDOMEN: pain, abdominal; spasm, gastrointestinal (stomach cramps or pain).

RECTUM: constipation; diarrhea.

BLADDER: cystitis (bloody or cloudy urine; burning or painful urination); infection, urinary tract (lower back pain; bloody or cloudy urine; difficult, burning, or painful urination).

KIDNEYS: infection, urinary tract (lower back pain; bloody or cloudy urine; difficult, burning, or painful urination).

GENITALIA FEMALE: vaginitis (itching of vagina or genital area).

RESPIRATION: bronchitis (cough, mucus-producing; shortness of breath; tightness in chest); pneumonia (chest pain; cough; shortness of breath); distress, respiratory (difficult or labored breathing; shortness of breath).

CHEST: bronchitis (cough, mucus-producing; shortness of breath; tightness in chest); palpitations (fast, irregular, pounding, or racing heartbeat or pulse); pneumonia (chest pain; cough; shortness of breath); pain, precordial or substernal; arrhythmia, cardiac (dizziness; fast, slow, or irregular heartbeat); block, atrioventricular (chest pain; dizziness; fainting; slow heartbeat); bradycardia (slow or irregular heartbeat; light-headedness); tachycardia (fast, pounding, or irregular heartbeat or pulse; palpitations; fainting).

EXTREMITIES: arthralgia (pain, swelling, or redness of joints; muscle pain or stiffness); cramps, leg; edema, peripheral (swelling of hands, ankles, feet, or lower legs); hypertonia (stiffness of muscles; tense muscles); myalgia (muscle aches or pains); pain, skeletal (bone or joint pain); tremor (trembling or shaking of hands or feet).

SLEEP: insomnia (sleeplessness; trouble in sleeping).

FEVER: fever; temperature sensation changes; temperature, body, low (hypothermia) (rebound effect?).

PERSPIRATION: sweating, excessive.

SKIN: disorder, skin; pruritus (itching skin); rash, erythematous.

GENERALITIES: abscess; allergic reaction (itching; difficulty breathing; fast heartbeat); anemia (unusual bleeding or bruising; unusual tiredness or weakness); arthralgia (pain, swelling, or redness of joints; muscle pain or stiffness); fatigue; hot flushes (feelings of warmth in face, neck, arms, and occasionally, chest); hypertonia (stiffness of muscles; tense muscles); hypoesthesia (decreased touch sensation); infection, fungal (itching in genital or other skin areas; scaling of skin); influenza-like symptoms (chills; cough; diarrhea; fever); injury; moniliasis (skin rash; cracks in skin; soreness or redness of skin); myalgia (muscle aches or pains); pain; pain, postoperative; pain, skeletal (bone or joint pain); palpitations (fast, irregular, pounding, or racing heartbeat or pulse); tremor (trembling or shaking of

hands or feet); *allergy, aggravated; hematoma* (deep, dark, purple bruise); *malaise* (unusual tiredness or weakness); *weight decrease or increase*; arrhythmia, cardiac (dizziness; fast, slow, or irregular heartbeat); bradycardia (slow or irregular heartbeat; light-headedness); hypertension (headache; pounding in the ears; slow or fast heartbeat); hypotension (dizziness, faintness, or light-headedness when getting up from a lying or sitting position); shock (cold, clammy skin; decreased blood pressure; fast, weak pulse); tachycardia (fast, pounding, or irregular heartbeat or pulse; palpitations; fainting); temperature, body, low (hypothermia) (rebound effect?).

DIAGNOSTIC TESTS: amylase, serum, increased; anemia; block, atrioventricular.

Charcoal, Activated (Oral-Local)

Commercial name(s): *Actidose with Sorbitol; Actidose-Aqua; Aqueous Charcodote; Aqueous Pediatric Charcodote; CharcoAid; CharcoAid 2000; CharcoAid G; Charcodote; Charcodote TFS-25; Charcodote TFS-50; Insta-Char Pediatric in an Aqueous Base with Cherry Flavor; Insta-Char Pediatric with Cherry Flavor in a Sorbitol Base; Insta-Char in an Aqueous Base; Insta-Char in an Aqueous Base with Cherry Flavor; Insta-Char with Cherry Flavor in a Sorbitol Base; Liqui-Char; Liqui-Char with Sorbitol; Pediatric Charcodote.*

Category: Antidote (adsorbent) [Activated Charcoal USP; Activated Charcoal Oral Suspension]; Antidote (adsorbent)-laxative [Activated Charcoal and Sorbitol Oral Suspension].

Conventional indications: Toxicity, nonspecific (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: vomiting.

ABDOMEN: pain, abdominal; swelling.

RECTUM: diarrhea; constipation.

STOOL: black stools.

GENERALITIES: electrolyte disturbances; hypotension.

DIAGNOSTIC TESTS: electrolyte disturbances.

Chlophedianol (Systemic)

Commercial name(s): *Ulonge*.

Category: Antitussive.

Conventional indications: Cough (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *excitement, unusual; hallucinations; irritability*.

VERTIGO: *dizziness* (with large doses).

VISION: *blurred vision* (with large doses).

MOUTH: *dryness* (with large doses).

STOMACH: *nausea* (with large doses); *vomiting* (with large doses).

SLEEP: *drowsiness* (with large doses).

DREAMS: *nightmares*.

SKIN: *hypersensitivity* (skin rash; hives).

GENERALITIES: *anticholinergic effects* (blurred vision; dizziness; drowsiness; dryness of the mouth; nausea; vomiting) (with large doses); *CNS stimulant effects* (hallucinations; nightmares; unusual excitement or irritability).

Chloral Hydrate (Systemic)

Commercial name(s): *Aquachloral Suppettes; Novo-Chlorhydrate; PMS-Chloral Hydrate.*

Category: Sedative-hypnotic.

Conventional indications: Anesthesia, adjunct; Sedation for procedures in pediatric patients.

Primary Actions or Pathogenetic Symptoms

MIND: *peacefulness* (serenity, calm); *confusion*.

VERTIGO: *dizziness; lightheadedness*; staggering.

MOUTH: speech, slurred.

THROAT: swallowing, difficulty in.

STOMACH: *nausea; pain; vomiting*.

ABDOMEN: function, hepatic, impaired.

RECTUM: *diarrhea*.

KIDNEYS: function, renal, impaired.

URINE: albuminuria.

RESPIRATION: shortness of breath; troubled breathing.

CHEST: heartbeat, slow or irregular.

EXTREMITIES: *clumsiness; unsteadiness*.

SLEEP: *drowsiness*.

SKIN: *allergic reaction* (skin rash or hives).

GENERALITIES: *“hangover” effect*; convulsions; heartbeat, slow or irregular; jaundice, transient; temperature, body, low; weakness, severe.

DIAGNOSTIC TESTS: albuminuria.

Secondary Actions or Rebound Effects: *nervousness; paradoxical reaction* (hallucinations; unusual excitement); *restlessness; trembling*.

Chlorambucil (Systemic)

Commercial name(s): *Leukeran*.

Category: Antineoplastic; Immunosuppressant.

Conventional indications: Leukemia, chronic lymphocytic (treatment); Lymphomas, Hodgkin's (treatment); Lymphomas, non-Hodgkin's (treatment); Carcinoma, ovarian, epithelial (treatment); Lymphomas, cutaneous T-cell (treatment); Tumors, trophoblastic,

gestational (treatment); Waldenström's macroglobulinemia (treatment); Leukemia, hairy cell (treatment); Nephrotic syndrome (treatment); Histiocytosis X (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: agitation.

MOUTH: *stomatitis* (sores in mouth and on lips).

STOMACH: *nausea*; *vomiting*.

ABDOMEN: *cirrhosis* (yellow eyes or skin); *hepatotoxicity* (yellow eyes or skin); *necrosis, hepatic* (yellow eyes or skin).

KIDNEYS: *nephropathy, uric acid* (joint pain; lower back or side pain; swelling of feet or lower legs).

GENITALIA FEMALE: *menstrual period, changes in*.

CHEST: *fibrosis, pulmonary* (cough; shortness of breath) (after long-term use); *pulmonary toxicity* (cough; shortness of breath).

EXTREMITIES: *myoclonia* (muscle twitching or jerking; rhythmic movement of muscles); ataxia (trouble in walking).

FEVER: *drug fever*.

SKIN: *allergic reaction* (skin rash); *dermatitis* (itching of skin); *urticaria* (itching; hives); *erythema multiforme* (blisters on skin ; severe skin rash; sores in mouth; fever); *necrolysis, epidermal* (blisters on skin; severe skin rash; sores in mouth; fever); *skin rash*.

GENERALITIES: *immunosuppression; infection* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **lymphopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **neutropenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools ; blood in urine or stools; pinpoint red spots on skin); *edema, angioneurotic* (large, swollen hives ; itching); *hyperuricemia* (joint pain; lower back or side pain; swelling of feet or lower legs); *bone marrow damage, possibly irreversible* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination; unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *death; erythema multiforme* (blisters on skin ; severe skin rash; sores in mouth; fever); *myoclonia* (muscle twitching or jerking; rhythmic movement of muscles); *neurotoxicity* (agitation; confusion; hallucinations; seizures; severe weakness or paralysis; tremors; trouble in walking); *Stevens-Johnson syndrome* (blisters on skin; severe skin rash; sores in mouth; fever); *neurotoxicity; pancytopenia, reversible* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination; unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); seizures.

DIAGNOSTIC TESTS: **leukopenia; lymphopenia; neutropenia; thrombocytopenia; hyperuricemia;** pancytopenia, reversible.

Chloramphenicol (Ophthalmic)

Commercial name(s): *Ak-Chlor Ophthalmic Ointment; Ak-Chlor Ophthalmic Solution; Chloracol Ophthalmic Solution; Chlorofair Ophthalmic Ointment; Chlorofair Ophthalmic Solution; Chloromycetin Ophthalmic Ointment; Chloromycetin for Ophthalmic Solution; Chloroptic Ophthalmic Solution; Chloroptic S.O.P.; Econochlor Ophthalmic Ointment; Econochlor Ophthalmic Solution; Fenicol Ophthalmic Ointment; I-Chlor Ophthalmic Solution; Ocu-Chlor Ophthalmic Ointment; Ocu-Chlor Ophthalmic Solution; Ophtho-Chloram Ophthalmic Solution; Ophthochlor Ophthalmic Solution; Pentamycetin Ophthalmic Ointment; Pentamycetin Ophthalmic Solution; Sopamycetin Ophthalmic Ointment; Sopamycetin Ophthalmic Solution; Spectro-Chlor Ophthalmic Ointment; Spectro-Chlor Ophthalmic Solution.*

Category: Antibacterial (ophthalmic).

Conventional indications: Ocular infections (treatment); Blepharitis, bacterial (treatment); Blepharoconjunctivitis (treatment); Conjunctivitis, bacterial (treatment); Keratitis, bacterial (treatment); Keratitis, exposure (treatment); Keratitis, neuroparalytic (treatment); Keratoconjunctivitis, bacterial (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *burning; stinging.*

VISION: *blurred vision* [ointment dosage form].

THROAT: *sore throat.*

FEVER: *fever.*

SKIN: *pale skin.*

GENERALITIES: *hypersensitivity* (burning, itching, redness, skin rash, swelling, or other sign of irritation not present before therapy); *anemia, aplastic; bleeding or bruising unusual; blood dyscrasias* (pale skin, sore throat and fever, unusual bleeding or bruising, unusual tiredness or weakness); *bone marrow depression* (hypoplasia); *death; tiredness or weakness, unusual.*

DIAGNOSTIC TESTS: *anemia, aplastic; bone marrow depression.*

Chloramphenicol (Otic)

Commercial name(s): *Chloromycetin.*

Category: Antibacterial (otic).

Conventional indications: Ear canal infections, external (treatment); Mastoidectomy cavity infections (treatment); Otitis media, chronic suppurative (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion, mental; depression, mild; hallucinations.*

HEAD: *headache.*

EYE: *neuritis, optic and peripheral* (blindness or changes in vision).

MOUTH: *swollen mouth and tongue; taste, unpleasant.*

STOMACH: *nausea; pain; vomiting.*

RECTUM: *diarrhea.*

EXTREMITIES: *neuritis, peripheral.*

FEVER: *fever.*

GENERALITIES: *central nervous system (CNS) effects* (hallucinations, headache, mental confusion, mild depression); *hypersensitivity reactions* (burning, itching, redness, skin rash, swelling, or other sign of irritation not present before therapy); *neuritis, peripheral; anemia, aplastic; blood dyscrasias* (pale skin; sore throat and fever; unusual bleeding or bruising; unusual tiredness or weakness); *bone marrow depression* (hypoplasia); *death; granulocytopenia; gray syndrome* (bluish tone to the skin; changes in blood pressure or heart rate; eating problems; irregular breathing; passage of loose green stools; stomach bloating with or without vomiting); *thrombocytopenia.*

DIAGNOSTIC TESTS: *anemia, aplastic; bone marrow depression; granulocytopenia; thrombocytopenia.*

Chloramphenicol (Systemic)

Commercial name(s): *Chloromycetin; Novochlorocap.*

Category: Antibacterial (systemic).

Conventional indications: Brain abscess (treatment); Ehrlichiosis (treatment); Meningitis (treatment); Paratyphoid fever (treatment); Q fever (treatment); Rocky Mountain spotted fever (treatment); Typhoid fever (treatment); Typhus infections (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; delirium.*

HEAD: *headache.*

EYE: *neuritis, optic* (eye pain, blurred vision, or loss of vision).

STOMACH: *nausea; vomiting.*

RECTUM: *diarrhea.*

EXTREMITIES: *neuritis, peripheral* (numbness, tingling, burning pain, or weakness in the hands or feet).

FEVER: *fever.*

SKIN: *pale skin.*

GENERALITIES: *blood dyscrasias* (pale skin; sore throat and fever; unusual bleeding or bruising; unusual tiredness or weakness); *anemia, aplastic; bleeding or bruising unusual; bone marrow depression; gray syndrome* (abdominal distension; blue-gray skin color; low body temperature; uneven breathing; unresponsiveness; cardiovascular collapse); *hypersensitivity reactions* (skin rash; fever; shortness of breath); *neuritis, peripheral* (numbness, tingling, burning pain, or weakness in the hands or feet); *neurotoxic reactions* (confusion; delirium; headache); *sore throat; tiredness or weakness, unusual.*

DIAGNOSTIC TESTS: *anemia, aplastic; bone marrow depression.*

Chlordiazepoxide and Amitriptyline (Systemic)

Commercial name(s): *Limbitrol; Limbitrol DS.*

Category: Antianxiety agent-antidepressant.

Conventional indications: Anxiety associated with mental depression (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; delirium; hallucinations.*

VERTIGO: **hypotension, orthostatic** (dizziness or lightheadedness); dizziness or lightheadedness, severe.

HEAD: **headache.**

EYE: *glaucoma, aggravation of* (blurred vision or other changes in vision; eye pain); pupils, enlarged.

VISION: *blurred vision.*

MOUTH: **dryness; taste, unpleasant.**

STOMACH: *nausea; vomiting; stomach cramps.*

ABDOMEN: **bloating; ileus, paralytic.**

RECTUM: *constipation; diarrhea.*

BLADDER: *urination, difficulty in.*

CHEST: *heartbeat, irregular or fast.*

EXTREMITIES: **clumsiness; unsteadiness; tremors, muscle** (shakiness); *muscle cramps*; stiffness or rigidity, muscle.

SLEEP: **drowsiness.**

FEVER: **fever.**

PERSPIRATION: *sweating, increased.*

SKIN: *allergic reaction* (increased sensitivity to sunlight; skin rash and itching).

GENERALITIES: **hypotension, orthostatic** (dizziness or lightheadedness); **weight gain; anticholinergic effects** (blurred vision; constipation or paralytic ileus, especially in the elderly; difficulty in urination); *heartbeat, irregular or fast; hypotension* (fainting); *tiredness or weakness, unusual; tremors, muscle* (shakiness); *agranulocytosis* (sore throat and fever); *convulsions; jaundice, cholestatic* (yellow eyes or skin); *muscle cramps; trembling*; stiffness or rigidity, muscle.

DIAGNOSTIC TESTS: *agranulocytosis* (sore throat and fever).

Secondary Actions or Rebound Effects: *CNS stimulation, paradoxical* (trouble in sleeping, with vivid dreams; unusual excitement, nervousness or irritability); *depression, mental; restlessness; agitation.*

Chlorhexidine (Implantation-Local)

Commercial name(s): *PerioChip.*

Category: Antibacterial (dental).

Conventional indications: Periodontitis (treatment).

Primary Actions or Pathogenetic Symptoms

MOUTH: **discomfort; pain, gum or mouth; sensitivity; soreness; tenderness; throbbing; hyperplasia of gums** (bleeding, tender, or enlarged gums); *stomatitis, ulcerative* (ulcers or sores in mouth).

TEETH: **pain, tooth.**

THROAT: *pharyngitis* (sore throat).

STOMACH: *dyspepsia* (indigestion or upset stomach).

RESPIRATION: *bronchitis* (cough, congestion or tightness in chest, or wheezing).

CHEST: *bronchitis* (cough, congestion or tightness in chest, or wheezing).

Chlorhexidine (Mucosal-Local)

Commercial name(s): *Oro-Clense; Peridex; PerioGard.*

Category: Antibacterial (dental).

Conventional indications: Gingivitis (treatment); Gingivitis, necrotizing ulcerative, acute (treatment); Mouth infections (prophylaxis); Mouth infections (treatment); Stomatitis, denture (treatment); Stomatitis, aphthous (treatment); Plaque, dental (prophylaxis).

Primary Actions or Pathogenetic Symptoms

FACE: *parotitis* (swollen glands on side of face or neck).

MOUTH: **staining of mouth; taste, change in; *irritation, tongue tip; lesions, desquamative, superficial*** (mouth irritation) (mainly in children ages 10 to 18 years; the lesions are transient and may be painless); *parotid duct obstruction.*

TEETH: **staining of teeth, tooth restorations (fillings), and dentures or other mouth appliances.**

EXTERNAL THROAT: *parotitis* (swollen glands on side of face or neck).

GENERALITIES: *allergic reaction* (nasal congestion; shortness of breath or troubled breathing; skin rash, hives, or itching; swelling of face).

Secondary Actions or Rebound Effects: **tartar (calculus), increase in.**

Chloroquine (Systemic)

Commercial name(s): *Aralen; Aralen HCl.*

Category: Antiprotozoal [Chloroquine]; Antihypercalcemic [Chloroquine (Oral)]; Antirheumatic (disease-modifying) [Chloroquine (Oral)]; Lupus erythematosus suppressant [Chloroquine (Oral)]; Polymorphous light eruption suppressant [Chloroquine (Oral)]; Porphyria cutanea tarda suppressant [Chloroquine (Oral)].

Conventional indications: Malaria (prophylaxis and treatment); Liver abscess, amebic (treatment); Hypercalcemia, sarcoid-associated (treatment) [Chloroquine (oral)]; Arthritis, juvenile (treatment) [Chloroquine (oral)]; Arthritis, rheumatoid (treatment) [Chloroquine (oral)]; Lupus erythematosus, discoid (treatment) or Lupus erythematosus, systemic (treatment) [Chloroquine (oral)]; Polymorphous light eruption (treatment) [Chloroquine (oral)]; Porphyria cutanea tarda (treatment) [Chloroquine (oral)]; Urticaria, solar (treatment) or Vasculitis, chronic cutaneous (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *emotional changes* (mood or other mental changes); *psychosis* (mood or other mental changes).

HEAD: *headache; hair, bleaching of or increased loss of.*

EYE: *dysfunction, ciliary muscle* (difficulty in reading); *keratopathy* (blurred vision; change in vision; eye pain; loss of vision); *opacities, corneal* (blurred vision; change in vision; eye pain; loss of vision); *retinopathy* (blurred vision; change in vision; eye pain; loss of vision); *arterioles in retine, narrowing of, atrophy, retinal or optic; damage, retinal; edema, retinal; pallor of the optic disk; pigmentation, retinal, abnormal, with loss of foveal reflex; pigmentation, retinal, patchy.*

VISION: *dysfunction, ciliary muscle* (difficulty in reading); *blurred vision or any other change in vision; nyctalopia; scotomas, temporal; scotomatous vision with paracentral and pericentral ring types.*

EAR: *ototoxicity* (any loss of hearing, ringing or buzzing in ears).

HEARING: *ototoxicity* (any loss of hearing, ringing or buzzing in ears).

MOUTH: *discoloration of inside of mouth, blue-black.*

STOMACH: *irritation, gastrointestinal* (diarrhea; loss of appetite; nausea; stomach cramps or pain; vomiting).

ABDOMEN: *irritation, gastrointestinal* (diarrhea; loss of appetite; nausea; stomach cramps or pain; vomiting).

RESPIRATION: *arrest, respiratory and cardiac.*

CHEST: *QRS interval, prolonged; arrest, respiratory and cardiac; cardiovascular toxicities* (conduction disturbances; hypotension).

EXTREMITIES: *neuromyopathy* (increased muscle weakness).

NAILS: *discoloration of fingernails, blue-black.*

SKIN: *itching* (especially in black patients); *discoloration, blue-black; hair, bleaching of or increased loss of; skin rash; psoriasis, psoriasiform eruption* [1].

GENERALITIES: *hypocalcemia; hair, bleaching of or increased loss of; agranulocytosis* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; sore throat; unusual bleeding or bruising; unusual tiredness or weakness); *anemia, aplastic; hypotension* (feeling faint or lightheaded); *neuromyopathy* (increased muscle weakness); *neutropenia* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; sore throat; unusual bleeding or bruising; unusual tiredness or weakness); *seizures; thrombocytopenia* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; sore throat; unusual bleeding or bruising; unusual tiredness or weakness); *cardiovascular toxicities* (conduction disturbances; hypotension); *neurotoxicity* (drowsiness; headache; hyperexcitability; seizures; coma).

DIAGNOSTIC TESTS: *hypocalcemia; agranulocytosis; anemia, aplastic; neutropenia; QRS interval, prolonged; thrombocytopenia.*

Complementary Bibliography: [1] Kim GK, Del Rosso JQ. Drug-provoked psoriasis: is it drug induced or drug aggravated? Understanding pathophysiology and clinical relevance. *J Clin Aesthet Dermatol* 2010; **3**(1): 32-38.

Chloroxine (Topical)

Commercial name(s): *Capitrol*.

Category: Antiseborrheic.

Conventional indications: Dandruff (treatment); Dermatitis, seborrheic, of scalp (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *burning or irritation, scalp, not present before therapy; dryness or increased itching of scalp.*

EYE: *conjunctivitis, chemical* (eye irritation) (if medication enters the eyes).

SKIN: *dermatitis, contact* (skin rash).

Cholecystographic Agents, Oral (Systemic)

Commercial name(s): *Bilivist; Bilopaque; Cholebrine; Oragrafin Calcium; Oragrafin Sodium; Telepaque.*

Category: Diagnostic aid, radiopaque (gallbladder disorders) [Iocetamic Acid; Iopanoic Acid; Ipodate; Tyropanoate]; Antihyperthyroid agent [Ipodate].

Conventional indications: Cholecystography, oral [Oral cholecystographic]; Hyperthyroidism, in Graves' disease (treatment) [Ipodate salts, and possibly iopanoic acid and tyropanoate].

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

EXTERNAL THROAT: *hypothyroidism* [Ipodate].

STOMACH: *nausea; vomiting; cramps; heartburn; spasms.*

ABDOMEN: *cramps, abdominal; spasms, abdominal.*

RECTUM: *diarrhea.*

BLADDER: *urinate, frequent urge to; urination, difficult or painful.*

KIDNEYS: *insufficiency, renal, acute.*

SKIN: *pseudo-allergic reaction* (itching, skin rash or hives, swelling of skin).

GENERALITIES: *bleeding, unusual* [Iopanoic acid]; *bruising, unusual* [Iopanoic acid]; *hypothyroidism* [Ipodate].

Cholecystokinins (Systemic)

Other commonly used names: CCK; Pancreozymin

Category: Cholecystokinetic; Diagnostic aid (gallbladder disorders; pancreatic disorders); Peristaltic stimulant.

Conventional indications: Cholecystography, oral, adjunct; Cholangiography adjunct; Small intestine studies; Pancreatic insufficiency (diagnosis adjunct).

Primary Actions or Pathogenetic Symptoms

STOMACH: cramps; discomfort; pain.

ABDOMEN: *colic, gallbladder* (spasmogenic effect on the gallbladder muscle and bile ducts); *peristaltic stimulant*; **cramps, abdominal; discomfort, abdominal; pain, abdominal.**

SKIN: flushing or redness (with rapid administration).

GENERALITIES: flushing or redness (with rapid administration).

Cholera Vaccine (Systemic)

Category: Immunizing agent (active).

Conventional indications: *Vibrio cholerae* (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

FEVER: fever.

GENERALITIES: malaise (general feeling of discomfort or illness); **pain, redness, or swelling at injection site; anaphylactic reaction** (difficulty in breathing or swallowing; hives; itching, especially of soles or palms; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe).

Cholestyramine (Oral-Local)

Commercial name(s): *Questran; Questran Light.*

Category: Antihyperlipidemic; Antipruritic (cholestasis); Antidiarrheal (postoperative colonic bile acids); Antidote (anion-exchange resin); Antihyperoxaluric.

Conventional indications: Hyperlipidemia (treatment); Pruritus, associated with partial biliary obstruction (treatment); Diarrhea, due to bile acids (treatment); Hyperoxaluria (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

STOMACH: heartburn; indigestion; nausea; pain; vomiting; *belching; bleeding, gastrointestinal* (black, tarry stools); *ulcer, peptic* (black, tarry stools).

ABDOMEN: indigestion; *bloating; bleeding, gastrointestinal* (black, tarry stools); *gallstones* (severe stomach pain with nausea and vomiting); *malabsorption syndrome* (sudden loss of weight); *pancreatitis* (severe stomach pain with nausea and vomiting); *ulcer, peptic* (black, tarry stools).

RECTUM: *constipation; diarrhea; bleeding, gastrointestinal* (black, tarry stools).

STOOL: *steatorrhea.*

EXTREMITIES: *osteoporosis* (chronic long-term use).

GENERALITIES: *hypolipidemic effect*; *osteoporosis* (chronic long-term use); *pancreatitis* (severe stomach pain with nausea and vomiting); *malabsorption syndrome* (sudden loss of weight).

DIAGNOSTIC TESTS: *osteoporosis*; *gallstones*.

Chondrocytes, Autologous Cultured (Implantation-Local)

Commercial name(s): *Carticel*.

Category: Cartilage repair adjunct.

Conventional indications: Cartilaginous defects, femoral (treatment).

Primary Actions or Pathogenetic Symptoms

EXTREMITIES: *hypertrophic cartilage diseases*; **hypertrophy, tissue** (“crackling” sound when moving joint; joint “catching” or stiffness; pain when moving joint); *adhesions* (joint stiffness); *synovitis, hypertrophic* (joint pain and swelling); “frozen knee”; *pannus formation* (inability to move joint); *swelling, joint*.

FEVER: *fever*.

SKIN: *infection, wound, superficial* (heat, redness, swelling, and/or oozing at the place of surgery); *scar, keloid-like, formation of*.

GENERALITIES: *hypertrophic cartilage diseases*; **hypertrophy, tissue** (“crackling” sound when moving joint; joint “catching” or stiffness; pain when moving joint); *adhesions* (joint stiffness); *hematoma formation* (bruising, severe); *infection, wound, superficial* (heat, redness, swelling, and/or oozing at the place of surgery); *synovitis, hypertrophic* (joint pain and swelling); *pain, postoperative*; *pannus formation* (inability to move joint); *scar, keloid-like, formation of*; *swelling, joint*.

Choriogonadotropin Alfa (Systemic)

Commercial name(s): *Ovidrel*.

Category: Gonadotropin; Infertility therapy agent.

Conventional indications: Infertility, female (treatment); Reproductive technologies, assisted.

Primary Actions or Pathogenetic Symptoms

GENITALIA FEMALE: *cyst, ovarian* (aching; bloating stomach; heaviness; pelvic discomfort); *ovarian hyperstimulation syndrome (OHSS)* (abdominal pain; nausea; pelvic pain, severe; rapid weight gain; vomiting).

GENERALITIES: **disorders, application site** (pain; bruising).

Chorionic Gonadotropin (Systemic)

Commercial name(s): *Chorex*; *Novarel*; *Pregnyl*; *Profasi*; *Profasi HP*.

Category: Gonadotropin; Cryptorchidism therapy adjunct; Infertility therapy adjunct; Diagnostic aid (hypogonadism).

Conventional indications: Cryptorchidism (diagnosis); Cryptorchidism (treatment); Infertility, male (treatment); Infertility, female (treatment); Reproductive technologies, assisted; Hypogonadism, male (diagnosis); Corpus luteum insufficiency (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); *irritability*.

HEAD: *headache*.

EYE: *angioedema* (large, hive-like swelling on eyelids).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

ABDOMEN: *ascites* (with ovarian hyperstimulation syndrome); *fluid, accumulation of, rapid, in the peritoneal cavity* (with ovarian hyperstimulation syndrome); *hemoperitoneum* (with ovarian hyperstimulation syndrome).

GENITALIA MALE: *puberty, precocious* (acne; enlargement of penis or testes; growth of pubic hair; rapid increase in height); *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *cysts, ovarian* (bloating, stomach or pelvic pain); **enlargement, ovarian, uncomplicated, mild to moderate** (mild bloating, stomach or pelvic pain); *ovarian hyperstimulation syndrome, severe* (severe abdominal or stomach pain; feeling of indigestion; moderate to severe bloating; decreased amount of urine; continuing or severe nausea, vomiting, or diarrhea; severe pelvic pain; rapid weight gain; shortness of breath; swelling of lower legs); *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: *distress, pulmonary, acute* (with ovarian hyperstimulation syndrome); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); *shortness of breath*.

CHEST: *breasts, enlargement of; effusions, pleural* (with ovarian hyperstimulation syndrome); *fluid, accumulation of, rapid, in the pleural and pericardial cavities* (with ovarian hyperstimulation syndrome); *hydrothorax* (with ovarian hyperstimulation syndrome).

EXTREMITIES: *edema, peripheral* (swelling of feet or lower legs; rapid weight gain); *angioedema* (large, hive-like swelling on hands, legs, feet).

SKIN: *erythema* (flushing; redness of skin; unusually warm skin); *skin rash; urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *edema, peripheral* (swelling of feet or lower legs; rapid weight gain); *pain at injection site; tiredness; angioedema* (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs); *ascites* (with ovarian hyperstimulation syndrome); *hemoconcentration* (with ovarian hyperstimulation syndrome); *hypovolemia* (with ovarian hyperstimulation syndrome); *imbalance, electrolyte* (with ovarian hyperstimulation syndrome); *thromboembolism, arterial* (pain in chest, groin, or legs, especially the calves; difficulty breathing; severe, sudden headache; slurred speech; sudden,

unexplained shortness of breath; sudden loss of coordination; sudden, severe weakness or numbness in arm or leg; vision changes).

DIAGNOSTIC TESTS: *imbalance, electrolyte* (with ovarian hyperstimulation syndrome).

Chromium Supplements (Systemic)

Commercial name(s): *Chroma-Pak*.

Category: Nutritional supplement (mineral).

Conventional indications: Chromium deficiency (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

No side effects or overdoses have been reported with chromium supplements.

Chymopapain (Parenteral-Local)

Commercial name(s): *Chymodiactin*.

Category: Chemonucleolytic (herniated lumbar intervertebral disk therapy).

Conventional indications: Disk, herniated lumbar intervertebral (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *coma*.

VERTIGO: *dizziness*.

HEAD: *headache; hemorrhage, intracerebral or subarachnoid* (headache, sudden, severe, and continuing).

EYE: *conjunctivitis*.

NOSE: *rhinitis, vasomotor* (runny nose).

STOMACH: *nausea; disturbances, gastrointestinal*.

ABDOMEN: *disturbances, gastrointestinal; ileus, paralytic* (abdominal or stomach cramps or pain; severe constipation; swelling of abdomen or stomach; vomiting).

BLADDER: *urination, decreased or uncontrolled*.

LARYNX AND TRACHEA: *edema, laryngeal*.

RESPIRATION: *bronchospasm*.

CHEST: *arrest, cardiac; arrhythmia, cardiac; bronchospasm; embolism, pulmonary*.

BACK: **pain; soreness; spasm, muscle, in lower back; stiffness; burning feeling in lower back or sacral area; diskitis, aseptic or bacterial** (fever; back pain or stiffness; abdominal pain; myelitis/myelopathy, transverse, acute (back pain, sudden and severe; muscle weakness, sudden and progressing).

EXTREMITIES: *cramps, leg; foot drop; numbness in legs or toes; pain, leg; tingling in legs or toes; weakness in legs; paralysis of legs; thrombophlebitis* (hot skin, pain, swelling, tenderness, and/or skin color changes in leg or foot).

SKIN: *dermatitis, allergic* (skin rash, hives, or itching); *erection, pilomotor*.

GENERALITIES: *pain, decreased sensitivity to; allergic reaction; anaphylaxis* (changes in facial skin color; fast or irregular breathing; hypotension; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or

wheezing; skin rash, hives, and/or itching); *angioedema*; *arrhythmia, cardiac*; *coma*; *death*; *erection, pilomotor*; *hemorrhage, central nervous system*; *hypotension*; *myelitis/myelopathy, transverse, acute* (back pain, sudden and severe; muscle weakness, sudden and progressing); *seizures*; *shock*; *thrombophlebitis* (hot skin, pain, swelling, tenderness, and/or skin color changes in leg or foot).

Ciclopirox (Topical)

Commercial name(s): *Loprox*; *Penlac Nail Lacquer*.

Category: Antifungal (topical).

Conventional indications: Candidiasis, cutaneous (treatment); Tinea corporis (treatment), Tinea cruris (treatment) or Tinea pedis (treatment) [Ciclopirox cream or lotion]; Tinea versicolor (treatment); Seborrheic dermatitis (treatment) [Ciclopirox gel and shampoo]; Onychomycosis (treatment) [Ciclopirox topical solution].

Primary Actions or Pathogenetic Symptoms

HEAD: *disorder, skin* [Ciclopirox shampoo]; *headache* [Ciclopirox shampoo]; *pruritus* (itching scalp) [Ciclopirox shampoo]; *rash* [Ciclopirox shampoo]; *seborrhea* (dandruff; oily skin) [Ciclopirox shampoo].

CHEST: *tachycardia, ventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations) [Ciclopirox shampoo].

SKIN: *disorder, skin* [Ciclopirox shampoo]; *pruritus* (itching skin or scalp) [Ciclopirox shampoo]; *rash* [Ciclopirox shampoo]; *seborrhea* (dandruff; oily skin) [Ciclopirox shampoo]; *irritation, local* (burning, itching, redness, swelling, or other signs of irritation not present before therapy).

GENERALITIES: *tachycardia, ventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations) [Ciclopirox shampoo].

DIAGNOSTIC TESTS: *tachycardia, ventricular*.

Cidofovir (Systemic)

Commercial name(s): *Vistide*.

Category: Antiviral (systemic).

Conventional indications: Cytomegalovirus retinitis (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

EYE: *hypotony, ocular* (decreased vision or any change in vision).

STOMACH: appetite, loss of; nausea; vomiting.

RECTUM: diarrhea.

KIDNEYS: *nephrotoxicity* (decreased urination; increased thirst and urination); *creatinine clearance, decrease in; serum creatinine, elevations in; Fanconi's syndrome* (multiple abnormalities of proximal tubule function); *function impairment, renal; injury, proximal tubular cell*.

URINE: *glycosuria; proteinuria.*

FEVER: *fever.*

GENERALITIES: **neutropenia** (fever, chills, or sore throat); *asthenia* (generalized weakness; loss of strength); *Fanconi's syndrome* (multiple abnormalities of proximal tubule function).

DIAGNOSTIC TESTS: **neutropenia;** *creatinine clearance, decrease in; glycosuria; proteinuria; serum creatinine, elevations in; serum phosphate, uric acid, and bicarbonate, decreases in.*

Cilostazol (Systemic)

Commercial name(s): *Pletal.*

Category: Platelet aggregation inhibitor; Vasodilator.

Conventional indications: Vascular disease, peripheral (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: **dizziness;** **vertigo** (dizziness); *hypotension, postural* (lightheadedness or dizziness when getting up from a lying or sitting position); *syncope* (fainting).

HEAD: **headache;** *cerebrovascular accident* (blurred vision; headache sudden and severe; inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe); *hematoma, extradural* (loss of consciousness; headache; drowsiness; confusion; weakness of part of body); *hematoma, subdural* (blurred vision; irregular heartbeat; nausea and vomiting; severe headache); *hemorrhage, cerebral* (blurred vision; headache sudden and severe; inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe); *hemorrhage, intracranial* (confusion; headache, sudden and severe; weakness; nausea and vomiting).

EYE: *hemorrhage, eye, retinal* (abnormal bleeding).

HEARING: *tinnitus* (ringing or buzzing in the ears).

NOSE: **rhinitis** (runny or stuffy nose); *epistaxis* (nosebleeds); *sinusitis* (headache; runny or stuffy nose).

FACE: *edema* (swelling of face).

MOUTH: *edema of the tongue* (swelling of the tongue); *hemorrhage, gum* (abnormal bleeding).

THROAT: **pharyngitis** (sore throat); *esophagitis* (burning feeling in throat or chest; difficulty in swallowing); *hemorrhage, esophageal* (abnormal bleeding).

EXTERNAL THROAT: *rigidity, neck* (stiff neck).

STOMACH: **dyspepsia** (heartburn); **nausea;** **pain, abdominal** (stomach pain); *cramps; burning, severe; gastritis* (burning feeling in chest or stomach; indigestion; tenderness in stomach area); *heartburn; indigestion; pain; ulcer, peptic; vomiting of blood or material that looks like coffee grounds; hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

ABDOMEN: **flatulence** (gas); **pain, abdominal** (stomach pain); *colitis* (stomach pain, cramping, or discomfort; bloody stools; diarrhea); *hemorrhage, retroperitoneal* (abnormal

bleeding); *indigestion*; *ulcer, duodenal or peptic*; *dysfunction, hepatic* (dark urine; light-colored stools; loss of appetite; nausea and vomiting; unusual tiredness; yellow eyes or skin; fever with or without chills; stomach pain); *liver function tests, abnormal* (lab results that show problems with the liver); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

RECTUM: *diarrhea*; *hemorrhage, rectal* (abnormal bleeding); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

STOOL: *bloody stools*; *black, tarry stools*.

GENITALIA FEMALE: *hemorrhage, vaginal* (abnormal bleeding).

RESPIRATION: *pneumonia, interstitial* (cough; difficult breathing; fever; shortness of breath).

COUGH: *cough, increased*.

CHEST: *palpitations* (pounding heartbeat); *tachycardia* (fast heartbeat); *fibrillation, atrial* (fast or irregular heartbeat); *hemorrhage, pulmonary* (coughing up blood; shortness of breath); *pain*; *pneumonia, interstitial* (cough; difficult breathing; fever; shortness of breath); *arrhythmias, cardiac* (fast or irregular heartbeat).

BACK: *pain*.

EXTREMITIES: *edema, peripheral* (swelling of arms or legs); *myalgia* (pain or stiffness in muscles); *arthralgia* (pain or stiffness in joints); *edema* (swelling of fingers, and/or lower legs); *pain, bone*.

CHILL: *chills, fever with chills*.

FEVER: *fever with or without chills*.

SKIN: *purpura* (bruises and/or red spots on the skin); *urticaria* (hives); *eruption, drug* (hives; skin rash; itching of skin; itching of eyes; wheezing); *hemorrhage, subcutaneous* (bruising); *pruritus* (itching skin).

GENERALITIES: *hemorrhage* (bleeding); *vasodilation*; *infection* (fever); *myalgia* (pain or stiffness in muscles); *palpitations* (pounding heartbeat); *tachycardia* (fast heartbeat); *arthralgia* (pain or stiffness in joints); *edema, generalized* (swelling of face, fingers, and/or lower legs); *hypotension, postural* (lightheadedness or dizziness when getting up from a lying or sitting position); *pain, bone*; *sinusitis* (headache; runny or stuffy nose); *agranulocytosis* (cough or hoarseness; fever with or without chills; general feeling of tiredness or weakness; lower back or side pain; painful or difficult urination; sore throat; sores, ulcers, or white spots on lips or in mouth; unusual bleeding or bruising); *granulocytopenia* (fever; chills; cough; sore throat; ulcers, sores, or white spots in mouth; shortness of breath; unusual tiredness or weakness); *hemorrhage, subcutaneous* (bruising); *hot flushes*; *jaundice* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *pain*; *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness);

thrombocytopenia (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); arrhythmias, cardiac (fast or irregular heartbeat); hypotension (dizziness or lightheadedness when getting up from a lying or sitting position).

DIAGNOSTIC TESTS: *agranulocytosis; granulocytopenia; leukopenia; thrombocytopenia.*

Cinacalcet (Systemic)

Commercial name(s): *Sensipar.*

Category: Calcimimetic.

Conventional indications: Hypercalcemia (treatment); Secondary hyperparathyroidism (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

EXTERNAL THROAT: *hypoparathyroidism* (decrease the secretion of parathyroid hormone).

STOMACH: *anorexia* (loss of appetite, weight loss); **nausea; vomiting.**

RECTUM: *diarrhea.*

CHEST: *pain, non-cardiac.*

EXTREMITIES: *myalgia* (joint pain, swollen joints, muscle aching or cramping, muscle pains or stiffness, difficulty in moving); *adynamic bone disease* (low bone turnover).

GENERALITIES: *hypoparathyroidism* (decrease the secretion of parathyroid hormone); **asthenia** (lack or loss of strength); **hypertension** (blurred vision, dizziness, nervousness, headache, pounding in the ears, slow or fast heartbeat); **myalgia** (joint pain, swollen joints, muscle aching or cramping, muscle pains or stiffness, difficulty in moving); *infection, access* (fever or chills, cough or hoarseness, lower back or side pain, painful or difficult urination); *seizures* (convulsions, muscle spasm or jerking of all extremities, sudden loss of consciousness, loss of bladder control); *adynamic bone disease* (low bone turnover); *hypocalcemia* (abdominal cramps; confusion; convulsions; difficulty in breathing; irregular heartbeats; mood or mental changes; muscle cramps in hands, arms, feet, legs, or face; numbness and tingling around the mouth, fingertips, or feet; shortness of breath; tremor).

DIAGNOSTIC TESTS: *hypocalcemia.*

Cinoxacin (Systemic)

Commercial name(s): *Cinobac.*

Category: Antibacterial (systemic).

Conventional indications: Urinary tract infections, bacterial (prophylaxis); Urinary tract infections, bacterial (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

STOMACH: *anorexia; cramps; nausea; vomiting.*

RECTUM: *diarrhea.*

EXTREMITIES: *rupture, tendon* (bone pain; lower back or side pain; painful, swollen joints); *tendinitis* (pain, inflammation, or swelling in calves, shoulders, or hands).

SKIN: *hypersensitivity* (skin rash, itching, redness, or swelling); *photosensitivity* (increased sensitivity of skin to sunlight).

GENERALITIES: *hypersensitivity* (skin rash, itching, redness, or swelling); *central nervous system (CNS) toxicity* (dizziness; headache); *convulsions* (seizures); *rupture, tendon* (bone pain; lower back or side pain; painful, swollen joints); *tendinitis* (pain, inflammation, or swelling in calves, shoulders, or hands); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: *thrombocytopenia.*

Ciprofloxacin (Ophthalmic)

Commercial name(s): *Ciloxan.*

Category: Antibacterial (ophthalmic).

Conventional indications: Corneal ulcers, bacterial (treatment); Conjunctivitis, bacterial (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *burning; crusting in corner of eye; crystals in corner of eye; discomfort; foreign body sensation* (feeling of something in eye); *hyperemia, conjunctival* (redness of the lining of the eyelids); *itching; dryness; edema, lid* (swelling of eyelid); *epitheliopathy; infiltrates, corneal; irritation; keratitis* (severe irritation or redness of eye); *keratopathy* (blurred vision or other change in vision); *pain; photophobia* (increased sensitivity of eyes to light); *staining, corneal; tearing.*

VISION: *blurred vision; decreased vision.*

MOUTH: *taste, bad, following instillation.*

STOMACH: *nausea.*

SKIN: *allergic reaction* (skin rash, hives, or itching); *dermatitis* (skin rash).

Ciprofloxacin and Dexamethasone (Otic)

Commercial name(s): *Ciprodex.*

Category: Antibacterial-corticosteroid (otic).

Conventional indications: Acute Otitis Media (treatment); Acute Otitis Externa (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *irritability.*

EAR: *discomfort; pain; pruritus* (itching skin on the ear); *congestion; debris; infection, superimposed; precipitate (residue)*.

MOUTH: *taste perversion* (bitter, sour or unusual taste in mouth).

SKIN: *pruritus* (itching skin on the ear); *erythema* (redness of skin).

Cisapride (Systemic)

Commercial name(s): *Propulsid*.

Category: Cholinergic enhancer; Gastrointestinal emptying (delayed) adjunct.

Conventional indications: Reflux, gastroesophageal (prophylaxis and treatment); Gastroparesis (treatment); Intestinal pseudo-obstruction (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *amnesia* (in pediatric patients); *apathy* (in pediatric patients); *concentration, impaired* (in pediatric patients); *confusion* (in pediatric patients); *depression* (in pediatric patients).

VERTIGO: *syncope*.

HEAD: *headache; migraine*.

VISION: *abnormalities, vision* (blurred vision or other changes in vision); *changes, visual* (in pediatric patients).

NOSE: *rhinitis* (runny nose).

FACE: *edema* (swelling of face).

MOUTH: *dryness*.

STOMACH: *dyspepsia* (heartburn or indigestion); *nausea*.

ABDOMEN: *cramping; flatulence* (gas); *pain, abdominal*.

RECTUM: *constipation; diarrhea*.

RESPIRATION: *apneic episodes, unexplained* (in pediatric patients).

CHEST: *arrest, cardiac; arrhythmias, cardiac* (dizziness; fainting or feeling faint; fast or racing heartbeat; pounding or irregular heartbeat); *block, heart, third-degree* (in infants and children); *fibrillation, ventricular; tachycardia, ventricular; torsades de pointes*.

EXTREMITIES: *edema* (swelling of hands, lower legs, and/or feet)

SLEEP: *somnolence* (drowsiness)

SKIN: *photosensitivity reaction, severe* (in pediatric patients)

GENERALITIES: *fatigue* (unusual tiredness or weakness); *tremor; acidosis* (in pediatric patients); *anemia, hemolytic or not* (in pediatric patients); *arrhythmias, cardiac* (dizziness; fainting or feeling faint; fast or racing heartbeat; pounding or irregular heartbeat); *death; edema* (swelling of face, hands, lower legs, and/or feet; unusual weight gain); *hyperglycemia* (in pediatric patients); *hypoglycemia with acidosis* (in pediatric patients); *methemoglobinemia* (in pediatric patients); *seizures; tachycardia, ventricular; torsades de pointes*.

DIAGNOSTIC TESTS: *acidosis; anemia, hemolytic or not; antinuclear antibodies (ANA), presence of; block, heart, third-degree; fibrillation, ventricular; hyperglycemia; hypoglycemia with acidosis; methemoglobinemia; QT prolongation; ; tachycardia, ventricular; torsades de pointes*.

Cisatracurium (Systemic)

Commercial name(s): *Nimbex*.

Category: Neuromuscular blocking (paralyzing) agent.

Conventional indications: Skeletal muscle paralysis.

Primary Actions or Pathogenetic Symptoms

RESPIRATION: *bronchospasm*.

CHEST: *bradycardia; bronchospasm*.

EXTREMITIES: *paralysis* (neuromuscular block).

SKIN: *flushing, cutaneous; skin rash*.

GENERALITIES: *paralysis* (neuromuscular block); *anaphylactic or anaphylactoid reactions; bradycardia; flushing, cutaneous; hypotension, recovery, prolonged* (following discontinuation of long-term infusion therapy).

Cisplatin (Systemic)

Commercial name(s): *Platinol; Platinol-AQ*.

Category: Antineoplastic.

Conventional indications: Carcinoma, bladder (treatment); Carcinoma, ovarian (treatment); Carcinoma, testicular (treatment); Carcinoma, adrenocortical (treatment); Carcinoma, breast (treatment); Carcinoma, cervical (treatment); Carcinoma, endometrial (treatment); Carcinoma, esophageal (treatment); Carcinoma, gastric (treatment); Carcinoma, lung, non–small cell (treatment); Carcinoma, lung, small cell (treatment); Neuroblastoma (treatment); Carcinoma, head and neck (treatment); Carcinoma, hepatocellular, primary (treatment); Carcinoma, thyroid (treatment); Thymoma (treatment); Carcinoma, anal (treatment); Carcinoma, biliary tract (treatment); Carcinoma, vulvar (treatment); Carcinoma, prostatic (treatment); Carcinoma, skin (treatment); Carcinoma, unknown primary site (treatment); Melanoma, malignant (treatment); Lymphoma, Hodgkin's (treatment); Lymphoma, non-Hodgkin's (treatment); Hepatoblastoma (treatment); Tumors, germ cell, ovarian (treatment); Tumors, germ cell (treatment); Tumors, trophoblastic, gestational (treatment); Wilms' tumor (treatment); Osteosarcoma (treatment); Sarcoma, soft tissue (treatment); Kaposi's sarcoma, acquired immunodeficiency syndrome (AIDS)–associated (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *arteritis, cerebral; cerebrovascular accident; neurotoxicity* (loss of reflexes; loss of taste; numbness or tingling in fingers or toes; seizures; trouble in walking).

EYE: *neuritis, optic; papilledema; pigmentation, retinal, irregular, of the macular area*.

VISION: *blindness, cerebral* (blurred vision; change in ability to see colors, especially blue or yellow).

EAR: *ototoxicity* (loss of balance; ringing in ears; trouble in hearing).

HEARING: *loss, hearing, unilateral or bilateral*.

MOUTH: *stomatitis* (sores in mouth and on lips).

STOMACH: **nausea, severe; vomiting, severe; appetite, loss of.**

KIDNEYS: **nephrotoxicity, or uric acid nephropathy** (joint pain; lower back or side pain; swelling of feet or lower legs).

CHEST: *infarction, myocardial.*

BACK: *Lhermitte's sign* (cervical cords disorders); *myelopathy, dorsal column.*

EXTREMITIES: *cramps, muscle* (localized, painful, involuntary skeletal contractions of sudden onset and short duration); *Raynaud's phenomenon.*

SKIN: *cellulitis, tissue* (with extravasion at site of injection).

GENERALITIES: **anemia secondary to myelosuppression** (unusual tiredness or weakness); **hyperuricemia** (joint pain; lower back or side pain; swelling of feet or lower legs); **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **myelosuppression** (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); **neurotoxicity** (loss of reflexes; loss of taste; numbness or tingling in fingers or toes; seizures; trouble in walking; rarely, muscle cramps); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *anaphylactic reaction, occurring within a few minutes after administration* (dizziness or fainting; fast heartbeat; swelling of face; wheezing); *extravasation* (pain or redness at site of injection); *anemia, hemolytic, coombs'-positive or not* (unusual tiredness or weakness); *cramps, muscle* (localized, painful, involuntary skeletal contractions of sudden onset and short duration); *death; fibrosis, tissue* (with extravasion at site of injection); *infarction, myocardial; Lhermitte's sign* (multiple sclerosis); *microangiopathy, thrombotic; necrosis, tissue* (with extravasion at site of injection); *nephrotoxicity* (decrease in urination; swelling of feet or lower legs); *neuropathy, autonomic; neurotoxicity* (loss of reflexes; loss of taste; numbness or tingling in fingers or toes; seizures; trouble in walking); *syndrome of inappropriate antidiuretic hormone (SIADH) secretion* (dizziness, confusion, or agitation; unusual tiredness or weakness); *toxicity, soft tissue, local* (with extravasion at site of injection).

DIAGNOSTIC TESTS: **anemia; hyperuricemia; leukopenia; myelosuppression; thrombocytopenia; anemia, hemolytic.**

Citalopram (Systemic)

Commercial name(s): *Celexa.*

Category: Antidepressant.

Conventional indications: Depressive disorder, major (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation; amnesia* (loss of memory); *anxiety; apathy* (lack of emotion); *confusion; aggressive reaction; akathisia* (inability to sit still; need to keep moving; restlessness); *delirium* (unusual excitement, nervousness, or restlessness; hallucinations; confusion as to time, place, or person; holding false beliefs that cannot be changed by fact); *delusions; depersonalization; euphoria; hallucinations; hypomania; irritability; lability, emotional;*

lethargy; mania; mood, dysphoric; nervousness; panic reaction; paranoid reaction; psychosis; coma.

VERTIGO: *hypotension, postural* (dizziness or fainting, especially when getting up from a lying or sitting position); *dizziness*.

HEAD: *migraine* (headache, severe and throbbing).

EYE: *angioedema* (large, hive-like swelling on eyelids); *nystagmus* (uncontrolled eye movements).

VISION: *accommodation, abnormal* (blurred vision).

NOSE: *rhinitis* (runny nose); *sinusitis* (headache; stuffy or runny nose).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *dryness; salivation, increased* (watering of mouth); *taste perversion* (change in sense of taste); *angioedema* (large, hive-like swelling on tongue).

TEETH: *grinding*.

THROAT: *angioedema* (large, hive-like swelling on throat).

STOMACH: *nausea; anorexia* (loss of appetite); *dyspepsia* (heartburn); *vomiting; hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

ABDOMEN: *flatulence* (gas); *pain, abdominal; hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); *necrosis, hepatic* (abdominal or stomach pain; black, tarry stools); *pancreatitis* (bloating; constipation; darkened urine; indigestion).

RECTUM: *diarrhea; hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

BLADDER: *micturition disturbances* (trouble in holding or releasing urine; painful urination).

KIDNEYS: *failure, renal, acute* (agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness).

URINE: *polyuria* (increase in frequency of urination or amount of urine produced).

GENITALIA MALE: *anorgasmia; ejaculation, abnormal; impotence* (decrease in sexual ability or desire); *libido, decreased; priapism* (penile erections, frequent or continuing).

GENITALIA FEMALE: *anorgasmia; libido, decreased; menstrual changes; abortion, spontaneous*.

RESPIRATION: *dyspnea* (trouble in breathing); *infection, upper respiratory tract* (ear congestion; nasal congestion; chills, cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *failure, respiratory*; cyanosis (bluish colored skin or lips); hyperventilation (deep or fast breathing with dizziness).

CHEST: *arrhythmia, cardiac* (dizziness or fainting; irregular heartbeat); *arrhythmia, ventricular* (fast, slow or irregular heartbeat); *bradycardia* (slow or irregular heartbeat [less than 50 beats per minute]); *enlargement, breast* (in females); *galactorrhea* (unusual secretion of milk) (in females); *pain; prolactinemia* (swelling of breasts or unusual milk

production); *tenderness, breast* (in females); *torsades de pointes* (fast, irregular heartbeat); nodal rhythm; tachycardia, sinus (fast heartbeat).

EXTREMITIES: *arthralgia* (pain in joints); *myalgia* (pain in muscles); *akathisia* (inability to sit still; need to keep moving; restlessness); *choreoathetosis* (restlessness or agitation; uncontrolled jerking or twisting movements); *myoclonus* (muscle twitching or jerking; rhythmic movement of muscles); *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness).

SLEEP: *drowsiness; insomnia* (trouble in sleeping); *somnolence* (sleepiness or unusual drowsiness); *yawning, increased*.

FEVER: *fever; hyperthermia, severe*.

PERSPIRATION: *sweating, increased*.

SKIN: *itching; skin rash; erythema multiforme* (blistering, peeling, loosening of skin; chills; cough); *necrolysis, epidermal* (redness, tenderness, itching, burning, or peeling of skin; red or irritated eyes; sore throat, fever, and chills).

GENERALITIES: *arthralgia* (pain in joints); *asthenia; ecchymosis* (bruising; large, flat, blue or purplish patches in the skin); *fatigue* (unusual tiredness or weakness); *hypotension; hypotension, postural* (dizziness or fainting, especially when getting up from a lying or sitting position); *infection, upper respiratory tract* (ear congestion; nasal congestion; chills, cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *myalgia* (pain in muscles); *paresthesia* (tingling, burning, or prickly feelings on skin); *prolactinemia* (swelling of breasts or unusual milk production); *sinusitis* (headache; stuffy or runny nose); *tremor* (trembling or shaking); *weight, increase or decrease in, unusual; agitation* (anxiety; nervousness; restlessness; irritability; dry mouth; shortness of breath; hyperventilation; trouble sleeping; irregular heartbeats; shaking); *allergic reaction; anaphylaxis* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *anemia, hemolytic* (back, leg, or stomach pains; bleeding gums; chills; dark urine; difficulty breathing; fatigue; fever; general body swelling; headache; loss of appetite; nausea or vomiting; nosebleeds; pale skin; sore throat; yellowing of the eyes or skin); *angioedema* (large, hive-like swelling on face, eyelids, lips, tongue or throat); *arrhythmia, cardiac* (dizziness or fainting; irregular heartbeat); *arrhythmia, ventricular* (fast, slow or irregular heartbeat); *bleeding, abnormal* (nose bleed; purple or red spots on skin; bleeding gums); *bradycardia* (slow or irregular heartbeat [less than 50 beats per minute]); *choreoathetosis* (restlessness or agitation; uncontrolled jerking or twisting movements); *coagulation, intravascular, disseminated; convulsions, grand mal* (total body jerking; loss of bladder control; loss of consciousness); *dyskinesia* (twitching, twisting, uncontrolled repetitive movements of tongue, lips, face, arms, or legs); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough); *extrapyramidal effects* (unusual or sudden body or facial movements or postures); *hypertension* (rebound effect?); *hyperthermia, severe; hypoglycemia* (anxiety; behavior change similar to drunkenness; difficulty in concentrating; increased hunger; nervousness; shakiness); *hyponatremia* (confusion; drowsiness; dryness of mouth; increased thirst; lack of energy; seizures); *myoclonus* (muscle twitching or jerking; rhythmic movement of muscles); *neuroleptic malignant syndrome* (difficult or fast breathing; drooling; fast heartbeat; impaired

consciousness, ranging from confusion to coma); *pancreatitis* (bloating; constipation; darkened urine; indigestion); *paresthesias* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *seizures*; *serotonin syndrome* (agitation; confusion; diarrhea; fever; overactive reflexes; poor coordination; restlessness; shivering; sweating; talking or acting with excitement you cannot control; trembling or shaking; twitching); *syndrome of inappropriate antidiuretic hormone secretion (SIADH)* (agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness); *thrombocytopenia*; *thrombosis* (tenderness, pain, swelling, warmth, skin discoloration, and prominent superficial veins over affected area); *torsades de pointes* (fast, irregular heartbeat); *tremor* (trembling or shaking); coma; cyanosis (bluish colored skin or lips); death; tachycardia, sinus (fast heartbeat).

DIAGNOSTIC TESTS: *anemia, hemolytic; arrhythmia, ventricular; hypoglycemia; hyponatremia; prolactinemia; QT prolonged; thrombocytopenia; torsades de pointes.*

Secondary Actions or Rebound Effects: *pancreatitis* (bloating; constipation; darkened urine; indigestion).

Citrates (Systemic)

Commercial name(s): *Bicitra; Citrolith; Oracit; Polycitra Syrup; Polycitra-K; Polycitra-K Crystals; Polycitra-LC; Urocit-K.*

Category: Antiurrolithic, uric acid calculi [Potassium Citrate; Potassium Citrate and Citric Acid; Potassium Citrate and Sodium Citrate; Sodium Citrate and Citric Acid; Tricitrates]; Antiurrolithic, cystine calculi [Potassium Citrate; Potassium Citrate and Citric Acid; Potassium Citrate and Sodium Citrate; Sodium Citrate and Citric Acid; Tricitrates]; Antiurrolithic, calcium oxalate calculi [Potassium Citrate; Potassium Citrate and Citric Acid]; Antiurrolithic, calcium phosphate calculi [Potassium Citrate; Potassium Citrate and Citric Acid]; Alkalizer, systemic [Potassium Citrate and Citric Acid; Sodium Citrate and Citric Acid; Tricitrates]; Alkalizer, urinary [Potassium Citrate; Potassium Citrate and Citric Acid; Potassium Citrate and Sodium Citrate; Sodium Citrate and Citric Acid; Tricitrates]; Buffer, neutralizing [Sodium Citrate and Citric Acid; Tricitrates].

Conventional indications: Renal calculi, cystine (prophylaxis and treatment); Renal calculi, uric acid (prophylaxis and treatment); Renal calculi, calcium (prophylaxis and treatment) or Hypocitraturia (prophylaxis and treatment) [Potassium citrate and potassium citrate and citric acid]; Acidosis, in renal tubular disorders (treatment) [Potassium citrate and citric acid, sodium citrate and citric acid, and tricitrates]; Pneumonitis, aspiration (prophylaxis) [Sodium citrate and citric acid and tricitrates].

Primary Actions or Pathogenetic Symptoms

STOMACH: *alkalizer*; *irritation, contact* (mild abdominal or stomach soreness or pain; nausea or vomiting) (tablet dosage form) [Potassium Citrate]; *bleeding, upper gastrointestinal* (tablet dosage form) [Potassium Citrate-containing].

ABDOMEN: *irritation, contact* (mild abdominal or stomach soreness or pain; nausea or vomiting) (tablet dosage form) [Potassium Citrate]; *bleeding, upper gastrointestinal* (tablet dosage form) [Potassium citrate-containing]; *obstruction or perforation, bowel* (abdominal or stomach cramps or pain; black, tarry stools; severe vomiting, sometimes with blood) (tablet dosage form) [Potassium Citrate-containing].

RECTUM: *laxative effect* (diarrhea or loose bowel movements) [Potassium Citrate- and sodium citrate-containing].

URINE: *alkalizer*.

CHEST: *arrest, cardiac* [Potassium Citrate-containing].

EXTREMITIES: *paralysis, muscle* [Potassium Citrate-containing].

GENERALITIES: *alkalosis, metabolic* (mood or mental changes; muscle pain or twitching; nervousness or restlessness; slow breathing; unpleasant taste; unusual tiredness or weakness) [Potassium Citrate- and Sodium Citrate-containing]; *paralysis, muscle* [Potassium Citrate-containing]; *hyperkalemia* (confusion; irregular heartbeat; numbness or tingling in hands, feet, or lips; shortness of breath or difficult breathing; unexplained anxiety; unusual tiredness or weakness; weakness or heaviness of legs) [Potassium citrate-containing]; *hypernatremia* (dizziness; fast heartbeat; high blood pressure; irritability; muscle twitching; restlessness; seizures; swelling of feet or lower legs; weakness) [Sodium citrate-containing].

DIAGNOSTIC TESTS: *alkalosis, metabolic* [Potassium citrate- and sodium citrate-containing]; *ECG changes* [Potassium citrate-containing]; *hyperkalemia* [Potassium citrate-containing]; *hypernatremia* [Sodium citrate-containing].

Citric Acid, Glucono-delta-lactone, and Magnesium (Mucosal-Local)

Commercial name(s): *Renacidin Irrigation*.

Category: Antiurolithic (apatite calculi; struvite calculi).

Conventional indications: Bladder calculi, apatite (treatment); Bladder calculi, struvite (treatment); Catheter, urinary tract, patency maintenance; Renal calculi, apatite (treatment); Renal calculi, struvite (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *coma; confusion; lethargy*.

STOMACH: *nausea; vomiting*.

ABDOMEN: *ileus* (abdominal pain; severe constipation; severe vomiting).

BLADDER: *ulceration/edema urothelial* (blood in urine; frequent urge to urinate; painful urination); *dysuria* (difficult urination); *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *irritability* (blood in urine; frequent urge to urinate; painful urination, severe or continuing).

KIDNEYS: **ulceration/edema urothelial** (blood in urine; frequent urge to urinate; painful urination); *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *serum creatinine, elevated*.

URINE: *hematuria, transient* (blood in urine).

RESPIRATION: *apnea; dyspnea*.

BACK: **pain, flank, transient;** *pain*.

EXTREMITIES: *thrombophlebitis* (bluish color changes in skin color; pain or tenderness; swelling of foot or leg).

GENERALITIES: *candidiasis; coma; hypermagnesemia* (cardiac arrest; chest pain; confusion; hyporeflexia; lightheadedness; nausea; shortness of breath or labored breathing; tiredness and weakness); *hyperphosphatemia* (muscle cramps; numbness, tingling, pain, or weakness in hands or feet; and shortness of breath or troubled breathing); *hypotension; septicemia* (rapid breathing; chills; fever; abdominal pain; nausea; diarrhea); *thrombophlebitis* (bluish color changes in skin color; pain or tenderness; swelling of foot or leg).

DIAGNOSTIC TESTS: *hematuria, transient; hypermagnesemia; hyperphosphatemia; serum creatinine, elevated*.

Cladribine (Systemic)

Commercial name(s): *Leustatin*.

Category: Antineoplastic.

Conventional indications: Leukemia, hairy cell (treatment); Leukemia, chronic lymphocytic (treatment); Lymphomas, non-Hodgkin's (treatment); Waldenstrom's macroglobulinemia (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: headache.

STOMACH: **anorexia** (loss of appetite); **nausea; vomiting;** *pain*.

RECTUM: *constipation; diarrhea*.

KIDNEYS: *failure, renal, acute*.

RESPIRATION: *breath, shortness of*.

COUGH: *cough*.

CHEST: *tachycardia* (unusually fast heartbeat).

EXTREMITIES: *arthralgia* (joint pain); *edema* (swelling of feet or lower legs); *myalgia* (muscle pain); *neurotoxicity* (paraparesis/quadruparesis of upper and/or lower extremities consistent with a demyelinating disease).

SLEEP: *trouble in sleeping*.

FEVER: fever.

PERSPIRATION: *sweating*.

SKIN: **skin rash;** *itching*.

GENERALITIES: **anemia, severe; infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **neutropenia, severe; thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); **tiredness, unusual; arthralgia** (joint pain); **injection site reaction** (pain or redness at site of injection); **phlebitis** (pain or redness at site of injection); **malaise** (general feeling of discomfort or illness); **myalgia** (muscle pain); **tachycardia** (unusually fast heartbeat); **weakness; death; depression of CD4 and CD8 lymphocyte subset counts, prolonged; hypocellularity, bone marrow, prolonged; macrocytosis, erythroid, prolonged; neurotoxicity** (paraparesis/quadruparesis of upper and/or lower extremities consistent with a demyelinating disease); **pancytopenia; toxicity, hematopoietic stem cell.**

DIAGNOSTIC TESTS: **anemia, severe; neutropenia, severe; thrombocytopenia; depression of CD4 and CD8 lymphocyte subset counts, prolonged; hypocellularity, bone marrow, prolonged; macrocytosis, erythroid, prolonged; pancytopenia.**

Clarithromycin (Systemic)

Commercial name(s): *Biaxin; Biaxin XL.*

Category: Antibacterial (systemic); Antimycobacterial.

Conventional indications: Bronchitis, chronic (treatment); Otitis media (treatment); Sinusitis, acute maxillary (treatment); *Mycobacterium avium* complex (MAC) disease, disseminated (prophylaxis); *Mycobacterium avium* complex (MAC) disease, disseminated (treatment adjunct); Pharyngitis (treatment); Tonsillitis (treatment); Pneumonia, community-acquired (treatment); Skin and soft tissue infections (treatment); Ulcer, duodenal, *Helicobacter pylori* –associated (treatment adjunct); Legionnaires' disease (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety* (fear; nervousness); *behavior, manic; behavioral changes* (anxiety; mental depression; mood changes; nervousness); *confusional states* (mood or mental changes); *depersonalization* (feeling of unreality; sense of detachment from self or body); *disorientation* (confusion about identity, place, and time); *hallucinations* (seeing, hearing, or feeling things that are not there); *psychosis* (feeling that others can hear your thoughts; feeling that others are watching you or controlling your behavior; feeling, seeing, or hearing things that are not there; severe mood or mental changes; unusual behavior).

VERTIGO: *dizziness; vertigo* (dizziness or lightheadedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: *headache.*

HEARING: *loss, hearing* (usually reversible and occurring chiefly in elderly women); *tinnitus* (continuing ringing or buzzing or other unexplained noise in ears; hearing loss).

NOSE: *smell, alterations of sense of.*

MOUTH: *taste, abnormal sensation of; discoloration, tongue; glossitis* (redness, swelling, or soreness of tongue); *moniliasis, oral* (sore mouth or tongue; white patches in mouth and/or on tongue); *stomatitis* (swelling or inflammation of the mouth); *taste loss.*

TEETH: *discoloration.*

STOMACH: *disturbances, gastrointestinal* (abdominal discomfort or pain; diarrhea; nausea; vomiting); *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); *anorexia* (loss of appetite; weight loss); *vomiting*.

ABDOMEN: *disturbances, gastrointestinal* (abdominal discomfort or pain; diarrhea; nausea; vomiting); *flatulence* (bloated, full feeling; excess air or gas in stomach or intestines; passing gas); *colitis, pseudomembranous* (abdominal or stomach cramps and pain, severe; abdominal tenderness; diarrhea, watery and severe, which may also be bloody; fever); *dysfunction, hepatic* (dark urine; light-colored stools; loss of appetite; nausea and vomiting; unusual tiredness; yellow eyes or skin; fever with or without chills; stomach pain); *failure, hepatic* (disease state may be a contributing factor); *hepatotoxicity* (fever; nausea and vomiting; yellow eyes or skin).

CHEST: *arrhythmias, ventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *tachycardia, ventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *torsade de pointes* (chest pain or discomfort; irregular or slow heart rate; fainting; shortness of breath; sudden death).

EXTREMITIES: *tremors* (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet).

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep).

DREAMS: *nightmares*.

SKIN: *eruptions, mild; hypersensitivity reaction* (skin rash and itching); *necrolysis, epidermal, toxic* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

GENERALITIES: *infection* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *allergic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *arrhythmias, ventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *hepatitis, cholestatic* (abdominal or stomach pain; chills; clay-colored stools; dark urine; diarrhea; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *hepatitis, hepatocellular; hypoglycemia* (anxiety; blurred vision; chills; cold sweats; coma; confusion; cool pale skin; depression; dizziness; fast heartbeat; headache; increased hunger; nausea; nervousness; nightmares; seizures; shakiness; slurred speech; unusual tiredness or weakness); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *neutropenia* (chills; cough; fever; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *tachycardia, ventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *thrombocytopenia* (unusual bleeding and bruising); *torsade de pointes* (chest

pain or discomfort; irregular or slow heart rate; fainting; shortness of breath; sudden death); *tremors* (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet).

DIAGNOSTIC TESTS: *arrhythmias, ventricular; hypoglycemia; leukopenia; neutropenia; QT prolongation; tachycardia, ventricular; thrombocytopenia; torsade de pointes.*

Clindamycin (Systemic)

Commercial name(s): *Cleocin; Cleocin Pediatric; Dalacin C; Dalacin C Flavored Granules; Dalacin C Phosphate.*

Category: Antibacterial (systemic); Antiprotozoal.

Conventional indications: Bone and joint infections (treatment) [Parenteral clindamycin]; Pelvic infections, female (treatment); Intra-abdominal infections (treatment); Pneumonia, anaerobic (treatment); Pneumonia, pneumococcal (treatment); Pneumonia, staphylococcal (treatment); Pneumonia, streptococcal (treatment); Septicemia, bacterial (treatment) [Oral and parenteral clindamycin]; Skin and soft tissue infections (treatment); Actinomycosis (treatment); Babesiosis (treatment); Erysipelas (treatment); Malaria (treatment); Otitis media, chronic suppurative (treatment); Pneumonia, *Pneumocystis carinii* (treatment); Sinusitis (treatment); Toxoplasmosis, central nervous system (CNS) (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: **disturbances, gastrointestinal** (stomach cramps and pain; nausea and vomiting).

ABDOMEN: **colitis, pseudomembranous** (severe abdominal or stomach cramps and pain; abdominal tenderness; diarrhea, watery and severe, which may also be bloody; fever); **disturbances, gastrointestinal** (abdominal pain; diarrhea; nausea and vomiting).

RECTUM: *fungal overgrowth* (itching of rectal area).

GENITALIA MALE: *fungal overgrowth* (itching of genital areas).

GENITALIA FEMALE: *fungal overgrowth* (itching of genital areas).

SKIN: *hypersensitivity* (skin rash, redness, and itching).

GENERALITIES: *neutropenia* (sore throat and fever); *thrombocytopenia* (unusual bleeding or bruising).

DIAGNOSTIC TESTS: *neutropenia; thrombocytopenia.*

Clindamycin (Topical)

Commercial name(s): *Cleocin T Gel; Cleocin T Lotion; Cleocin T Topical Solution; Clinda-Derm; Dalacin T Topical Solution; Evoclin.*

Category: Antiacne agent (topical); Antibacterial (topical).

Conventional indications: Acne vulgaris (treatment); Skin infections, bacterial, minor (treatment); Ulcer, dermal (treatment) [Clindamycin phosphate topical solution].

Primary Actions or Pathogenetic Symptoms

HEAD: *headache* [Topical foam].

STOMACH: disturbances, gastrointestinal.

ABDOMEN: disturbances, gastrointestinal (abdominal pain; mild diarrhea); *colitis, pseudomembranous* (abdominal or stomach cramps, pain, and bloating, severe; diarrhea, watery and severe, which may also be bloody; fever; increased thirst; nausea or vomiting; unusual tiredness or weakness; weight loss, unusual).

SKIN: **dryness; peeling; scaliness; burning feeling; irritation; oiliness; sensitization; stinging; dermatitis, contact; hypersensitivity** (skin rash, itching, redness, swelling, or other sign of irritation not present before therapy).

Clindamycin (Vaginal)

Commercial name(s): *Cleocin; Clindesse; Dalacin.*

Category: Anti-infective (vaginal).

Conventional indications: Vaginitis, bacterial (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

STOMACH: disturbances, gastrointestinal (diarrhea; nausea or vomiting; stomach pain or cramps).

ABDOMEN: disturbances, gastrointestinal (diarrhea; nausea or vomiting; stomach pain or cramps).

GENITALIA FEMALE: **cervicitis, vaginitis, or vulvovaginal pruritus, primarily due to candida albicans** (itching of the vagina or genital area; pain during sexual intercourse; thick, white vaginal discharge with no odor or with a mild odor).

GENERALITIES: *hypersensitivity* (burning, itching, redness, skin rash, swelling, or other signs of skin irritation not present before therapy).

Clioquinol (Topical)

Commercial name(s): *Vioform.*

Category: Antibacterial (topical); Antifungal (topical).

Conventional indications: Dermatomycoses, superficial (treatment); Eczema, infected (treatment); Pyoderma, infected (treatment); Burns, mild, infected (treatment); Skin infections, bacterial, minor (prophylaxis and treatment); Tinea barbae (treatment); Tinea capitis (treatment); Ulcer, dermal (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *sensitization* (burning, itching, skin rash, redness, swelling, or other signs of irritation not present before therapy or becoming worse during therapy).

Clioquinol and Hydrocortisone (Topical)

Commercial name(s): *Vioform-Hydrocortisone Cream; Vioform-Hydrocortisone Lotion; Vioform-Hydrocortisone Mild Cream; Vioform-Hydrocortisone Mild Ointment; Vioform-Hydrocortisone Ointment.*

Category: Antibacterial-antifungal-corticosteroid (topical).

Conventional indications: Dermatitis, atopic (treatment); Dermatitis, contact (treatment); Eczema (treatment); Folliculitis (treatment); Intertrigo (treatment); Pruritus, anogenital (treatment); Skin infections, bacterial, minor (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *sensitization* (blistering, burning, itching, peeling, skin rash, redness, swelling, or other signs of irritation not present before therapy); *thinning of skin with easy bruising* (with prolonged use).

Clodronate (Systemic)

Commercial name(s): *Bonefos.*

Category: Bone resorption inhibitor; Antihypercalcemic.

Conventional indications: Hypercalcemia, neoplasm-associated (treatment); Metastases, osteolytic (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MOUTH: *irritation.*

THROAT: *pharyngitis, ulcerative* (sores in throat).

STOMACH: *pain, gastric* (tenderness in stomach area); **nausea; vomiting.**

RECTUM: *diarrhea* (increased bowel movements; loose stools).

KIDNEYS: *dysfunction, renal* (cloudy urine; decrease in urine output or decrease in urine-concentrating ability); *failure, renal* (agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness); *damage, renal* (bloody or cloudy urine; difficult or painful urination; sudden increase or decrease in amount of urine).

EXTREMITIES: *exostosis* (bone growth).

GENERALITIES: *exostosis* (bone growth); *hypocalcemia* (abdominal cramps; confusion; convulsions; difficulty in breathing; irregular heartbeats ; mood or mental changes; muscle cramps in hands, arms, feet, legs, or face; numbness and tingling around the mouth, fingertips, or feet; shortness of breath; tremor); *leukemia, non-lymphocytic, acute* (tiredness; weakness).

DIAGNOSTIC TESTS: *hypocalcemia.*

Clofarabine (Systemic)

Commercial name(s): *Clolar.*

Category: Antineoplastic.

Conventional indications: Leukemia, acute lymphoblastic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety** (fear; nervousness); **depression** (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); **irritability**; **lethargy** (unusual drowsiness; dullness, tiredness, weakness or feeling of sluggishness).

VERTIGO: **dizziness.**

HEAD: **headache.**

EYE: **herpes simplex** (painful cold sores or blisters on eyes).

NOSE: **epistaxis** (bloody nose); **herpes simplex** (painful cold sores or blisters on nose).

FACE: **flushing** (feeling of warmth; redness of the face); **herpes simplex** (painful cold sores or blisters on lips); **inflammation, mucosal** (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth).

MOUTH: **bleeding, gingival** (bleeding gums); **candidiasis, oral** (sore mouth or tongue; white patches in mouth and/or on tongue); **inflammation, mucosal** (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth).

THROAT: **inflammation, mucosal** (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth); **sore throat.**

EXTERNAL THROAT: **flushing** (feeling of warmth; redness of the neck).

STOMACH: **anorexia** (loss of appetite; weight loss); **appetite decreased**; **nausea**; **vomiting.**

ABDOMEN: **hepatomegaly** (right upper abdominal pain and fullness); **pain, abdominal** (stomach pain).

RECTUM: **constipation** (difficulty having a bowel movement [stool]); **diarrhea.**

KIDNEYS: **creatinine, elevated.**

URINE: **hematuria** (blood in urine).

GENITALIA MALE: **herpes simplex** (painful cold sores or blisters on genitals).

GENITALIA FEMALE: **herpes simplex** (painful cold sores or blisters on genitals).

RESPIRATION: **distress, respiratory** (shortness of breath; troubled breathing; tightness in chest, or wheezing); **dyspnea** (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); **pneumonia** (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

COUGH: **cough.**

CHEST: **effusion, pleural** (chest pain; shortness of breath); **pneumonia** (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); **systolic dysfunction, left ventricular** (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing); **tachycardia** (fast, pounding, or irregular heartbeat or pulse).

BACK: **pain.**

EXTREMITIES: **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **erythrodysesthesia, palmar-plantar** (redness, swelling, pain of skin; scaling of skin on hands and feet; tingling of hands and feet; ulceration of skin); **flushing** (feeling of

warmth; redness of the arms); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **pain in limb**.

SLEEP: somnolence (sleepiness or unusual drowsiness).

CHILL: rigors (feeling unusually cold; shivering).

FEVER: pyrexia (fever).

SKIN: cellulitis (itching pain; redness; swelling; tenderness; warmth on skin); **dermatitis** (blistering, crusting, irritation, itching, or reddening of skin; cracked, dry, scaly skin; swelling); **dryness**; **erythema** (flushing, redness of skin; unusually warm skin); **petechia** (small red or purple spots on skin); **pruritus** (itching skin); **rash, maculopapular** (rash with flat lesions or small raised lesions on the skin).

GENERALITIES: anemia (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **bacteremia** (rapid breathing; chills; fever; abdominal pain; nausea; diarrhea); **contusion**; **edema** (swelling); **fatigue** (unusual tiredness or weakness); **flushing** (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest); **herpes simplex** (burning or stinging of skin; painful cold sores or blisters on lips, nose, eyes, or genitals); **hyperbilirubinemia** (yellow eyes or skin); **hypertension** (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat) (rebound effect?); **hypotension** (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); **infection** (fever or chill; cough or hoarseness; lower back or side pain; painful or difficult urination); **infection, staphylococcal**; **jaundice** (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); **leukopenia** (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **neutropenia** (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); **neutropenia, febrile** (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); **pain; pain, injection site**; **sepsis** (chills; confusion; dizziness; lightheadedness; fainting; fast heartbeat; fever; rapid, shallow breathing); **systolic dysfunction, left ventricular** (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing); **tachycardia** (fast, pounding, or irregular heartbeat or pulse); **thrombocytopenia** (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); **transfusion reaction** (dizziness; fever or chills; facial swelling; headache; nausea or vomiting; shortness of breath; skin rash; weakness); **tremor** (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet); **weight decreased**; **capillary leak syndrome** (cloudy urine; decrease or increase in

amount of urine; fainting or lightheadedness; nausea; stomach pain; swelling of hands, ankles, feet, or lower legs).

DIAGNOSTIC TESTS: anemia; creatinine, elevated; hematuria; hyperbilirubinemia; leukopenia; neutropenia (febrile); systolic dysfunction, left ventricular; thrombocytopenia.

Clofazimine (Systemic)

Commercial name(s): *Lamprene*.

Category: Antibacterial (antimycobacterial).

Conventional indications: Leprosy (treatment); Mycobacterial infections, atypical (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: sputum; *depression, mental; suicide*.

EYE: lining of the eyelids; *burning; dryness; irritation; itching*.

MOUTH: *taste, changes in*.

STOMACH: disturbances, gastrointestinal (anorexia; diarrhea; nausea or vomiting); *bleeding, gastrointestinal* (bloody or black, tarry stools); *toxicity, gastrointestinal* (colicky or burning abdominal or stomach pain).

ABDOMEN: disturbances, gastrointestinal (anorexia; diarrhea; nausea or vomiting); *bleeding, gastrointestinal* (bloody or black, tarry stools); *crystalline deposits in various tissues* (including the intestinal mucosa, liver, spleen, and mesenteric lymph nodes); *enteritis, eosinophilic; infarction, splenic; obstruction, bowel; toxicity, gastrointestinal* (colicky or burning abdominal or stomach pain).

STOOL: discoloration.

SKIN: discoloration, pink or red to brownish-black; ichthyosis (dry, rough, or scaly skin); itching; skin rash; *photosensitivity* (increased sensitivity of skin to sunlight).

GENERALITIES: *crystalline deposits in various tissues* (including the intestinal mucosa, liver, spleen, and mesenteric lymph nodes); *death; hepatitis or jaundice* (yellow eyes or skin) (may be obscured due to pink to brownish-black discoloration of skin, cornea, and conjunctiva).

Clofibrate (Systemic)

Commercial name(s): *Abitrate; Atromid-S; Claripex; Novofibrate*.

Category: Antihyperlipidemic; Antidiuretic (central diabetes insipidus).

Conventional indications: Hyperlipidemia (treatment); Diabetes insipidus, central (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache*.

MOUTH: *stomatitis* (sores in mouth and on lips).

STOMACH: nausea; *appetite, increased; gas; heartburn; pain; vomiting*.

ABDOMEN: *cholecystitis; cholelithiasis (gallstones); pancreatitis (severe stomach pain with nausea and vomiting); tumors, hepatic, malignant, increase of the incidence of (in rodents).*

RECTUM: *diarrhea.*

KIDNEYS: *toxicity, renal (blood in urine; decrease in urination; painful urination; swelling of feet and lower legs).*

GENITALIA MALE: *sexual ability, decreased.*

GENITALIA FEMALE: *sexual ability, decreased.*

CHEST: *angina (chest pain; shortness of breath); arrhythmias, cardiac (irregular heartbeat); embolism, pulmonary.*

EXTREMITIES: *myositis (muscle aches or cramps; unusual tiredness or weakness); claudication, intermittent; rhabdomyolysis; vascular disease, peripheral.*

GENERALITIES: *flu-like syndrome (muscle aches or cramps; unusual tiredness or weakness); myositis (muscle aches or cramps; unusual tiredness or weakness); weight gain, slight; anemia; arrhythmias, cardiac (irregular heartbeat); creatine kinase (CK) concentrations increased; death from noncardiovascular causes (malignancy, postcholecystectomy complications, pancreatitis); hyperkalemia, severe; leukopenia (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); pancreatitis (severe stomach pain with nausea and vomiting); rhabdomyolysis; serum transaminase concentrations increased; thrombophlebitis; vascular disease, peripheral; tumors, hepatic, malignant, increase of the incidence of (in rodents).*

DIAGNOSTIC TESTS: *hypolipidemia; anemia; creatine kinase (CK) concentrations increased; hyperkalemia, severe; leukopenia; serum transaminase concentrations increased.*

Clomiphene (Systemic)

Commercial name(s): *Clomid; Milophene; Serophene.*

Category: *Antiestrogen; Infertility therapy adjunct; Diagnostic aid (ovarian function; hypothalamic-pituitary-gonadal axis function).*

Conventional indications: *Infertility, female (treatment); Corpus luteum insufficiency (treatment); Hypothalamic-pituitary-gonadal axis function, in males (diagnosis); Infertility, male (treatment); Ovarian function studies.*

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental; nervousness; restlessness.*

VERTIGO: *dizziness; lightheadedness.*

HEAD: *headache.*

EYE: *floaters (spots in visual field caused by protein deposits in the vitreous fluid of the eye); photophobia (increased sensitivity of eyes to light).*

VISION: *blurred vision; changes in vision, especially after-images (persistence of visual images); diplopia (double vision); floaters (spots in visual field caused by protein deposits in the vitreous fluid of the eye); phosphenes (seeing flashes of light); scotoma (area of decreased vision in visual field surrounded by normal or less-diminished vision).*

STOMACH: nausea; vomiting.

ABDOMEN: hepatotoxicity (yellow eyes or skin); pain, abdominal.

GENITALIA FEMALE: hypoestrogenemia; **cyst formation**, **ovarian**; **enlargement**, **fibroid**, **uterine** (abdominal bloating; stomach pain; pelvic pain); **enlargement**, **ovarian**; **premenstrual syndrome**; menorrhagia (increased amount of menstrual bleeding at regular monthly periods); spotting (light uterine bleeding between regular menstrual periods).

CHEST: discomfort, breast, in women; gynecomastia in men (enlargement of breasts).

SLEEP: trouble in sleeping.

GENERALITIES: hypoestrogenemia; **hot flashes**; tiredness.

DIAGNOSTIC TESTS: hypoestrogenemia.

Clonidine (Parenteral-Local)

Commercial name(s): *Duraclon*.

Category: Analgesic.

Conventional indications: Pain, cancer (treatment adjunct); Shivering, post-operative (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety**; **confusion**; depression, mental; hallucinations (seeing, feeling, or hearing things that are not there); agitation; nervousness; coma; irritability.

VERTIGO: **dizziness**.

HEAD: cerebrovascular accidents; meningitis.

EYE: miosis (blurred vision).

HEARING: tinnitus (ringing, noises, or buzzing in the ear).

MOUTH: **dryness**.

STOMACH: **nausea**; vomiting.

RECTUM: constipation.

RESPIRATION: hypoventilation (extremely shallow or slow breathing); apnea (cessation in breathing); depression, respiratory.

CHEST: **bradycardia** (slow heart rate); pain; tachycardia (fast heartbeat); block, atrioventricular (AV) [Epidural Clonidine]; arrhythmias, cardiac, reversible; conduction defects, cardiac.

BACK: abscess, epidural

SLEEP: **somnolence** (sleepiness); drowsiness

FEVER: fever; hypothermia

PERSPIRATION: sweating, unusual

GENERALITIES: pain absence; **bradycardia** (slow heart rate); **hypotension** (dizziness, lightheadedness, or fainting); **infections**, **catheter related**; asthenia (weakness); sedation; tachycardia (fast heartbeat); cerebrovascular accidents; death; arrhythmias, cardiac, reversible; coma; hypertension; hypothermia; reflexes, decreased or absent; seizures.

DIAGNOSTIC TESTS: block, atrioventricular (AV) [Epidural Clonidine]; conduction defects, cardiac.

Secondary Actions or Rebound Effects: *encephalopathy, hypertensive; headache; hypertension, rebound; tremor, accompanied or followed by a rapid rise in blood pressure.*

Clonidine (Systemic)

Commercial name(s): *Catapres; Catapres-TTS-1; Catapres-TTS-2; Catapres-TTS-3; Dixarit.*

Category: Antihypertensive [Clonidine Hydrochloride Tablets; Clonidine Transdermal Systems]; Menopausal syndrome therapy adjunct [Clonidine Hydrochloride Tablets]; Vascular headache prophylactic [Clonidine Hydrochloride Tablets]; Antidysmenorrheal [Clonidine Hydrochloride Tablets]; Opioid withdrawal syndrome suppressant [Clonidine Hydrochloride Tablets].

Conventional indications: Hypertension (treatment); Pheochromocytoma (diagnosis); Headache, vascular (prophylaxis); Dysmenorrhea (treatment); Opioid (narcotic) abstinence syndrome (treatment); Nicotine dependence (treatment adjunct); Gilles de la Tourette's syndrome (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental; nervousness; anxiety; lethargy (unusual tiredness or weakness, extreme).*

VERTIGO: *dizziness; hypotension, orthostatic* (dizziness, lightheadedness, or fainting, especially when getting up from a lying or sitting position).

EYE: *burning; dryness; itching; degeneration, retinal, spontaneously occurring, increase in the incidence and severity of* (administration of clonidine for 6 months or longer to albino rats); miosis (pinpoint pupils of eyes).

MOUTH: *dryness.*

STOMACH: *anorexia* (loss of appetite); *nausea; vomiting.*

RECTUM: *constipation.*

KIDNEYS: *retention, sodium and water.*

GENITALIA MALE: *sexual ability, decreased.*

GENITALIA FEMALE: *sexual ability, decreased.*

RESPIRATION: *apnea; depression, respiratory (difficulty in breathing).*

CHEST: *bradycardia (slow heartbeat).*

EXTREMITIES: *edema* (swelling of feet and lower legs); *Raynaud's phenomenon* (paleness or cold feeling in fingertips and toes).

SLEEP: *drowsiness.*

DREAMS: *nightmares; vivid dreams.*

FEVER: *hypothermia (feeling cold).*

SKIN: *itching; redness; darkening of skin* (with transdermal systems only); psoriasis, psoriasiform eruption [1].

GENERALITIES: *hypotension; tiredness or weakness, unusual; hypotension, orthostatic* (dizziness, lightheadedness, or fainting, especially when getting up from a lying or sitting position); *retention, sodium and water;* bradycardia (slow heartbeat); hypothermia (feeling cold); toxicity (with ingestion of 0.1 mg in children).

Complementary Bibliography: [1] Kim GK, Del Rosso JQ. Drug-provoked psoriasis: is it drug induced or drug aggravated? Understanding pathophysiology and clinical relevance. *J Clin Aesthet Dermatol* 2010; **3**(1): 32-38.

Secondary Actions or Rebound Effects: *opioid withdrawal syndrome suppressant* [Clonidine Hydrochloride Tablets]; *angina* (chest pain); *headache*; *hypertension, rebound*; *palpitations* (pounding heartbeat); *restlessness*; *shaking or trembling of hands and fingers*; *salivation, increased*; *stomach cramps*; *sweating*; *tachycardia* (fast heartbeat); *tenseness*; *trouble in sleeping*.

Clonidine and Clorthalidone (Systemic)

Commercial name(s): *Combipres*.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental*; *nervousness*; lethargy (unusual tiredness or weakness, extreme).

VERTIGO: *dizziness*; *hypotension, orthostatic* (dizziness, lightheadedness, or fainting, especially when getting up from a lying or sitting position).

EYE: *burning*; *dryness*; *itching*; *degeneration, retinal, spontaneously occurring, increase in the incidence and severity of* (administration of clonidine for 6 months or longer to albino rats); miosis (pinpoint pupils of eyes).

MOUTH: *dryness*.

STOMACH: *anorexia* (loss of appetite); *nausea*; *upset, stomach*; *vomiting*.

ABDOMEN: *cholecystitis*; *function impairment, hepatic* (yellow eyes or skin); *pancreatitis* (severe stomach pain with nausea and vomiting).

RECTUM: *constipation*; *diarrhea*.

KIDNEYS: *retention, sodium and water*.

GENITALIA MALE: *sexual ability, decreased*.

GENITALIA FEMALE: *sexual ability, decreased*.

RESPIRATION: *apnea*; *depression, respiratory* (difficulty in breathing).

CHEST: *bradycardia* (slow heartbeat).

EXTREMITIES: *edema* (swelling of feet and lower legs); *gout* (joint pain, lower back or side pain); *Raynaud's phenomenon* (paleness or cold feeling in fingertips and toes).

SLEEP: *drowsiness*.

DREAMS: *nightmares*; *vivid dreams*.

FEVER: *hypothermia* (feeling cold).

SKIN: *photosensitivity* (increased sensitivity of skin to sunlight); *allergic reaction* (skin rash or hives).

GENERALITIES: *hypotension*; *hyponatremia*; *hypochloremic alkalosis, and hypokalemia* (confusion; convulsions; decreased mentation; dryness of mouth; fatigue; increased thirst; irregular heartbeat; irritability; mood or mental changes; muscle cramps or

pain; nausea or vomiting; unusual tiredness or weakness; weak pulse); **tiredness or weakness, unusual**; *hypotension, orthostatic* (dizziness, lightheadedness, or fainting, especially when getting up from a lying or sitting position); *retention, sodium and water*; *agranulocytosis* (fever or chills; cough or hoarseness); *gout* (joint pain, lower back or side pain); *hyperuricemia* (joint pain, lower back or side pain); *pancreatitis* (severe stomach pain with nausea and vomiting); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); bradycardia (slow heartbeat); hypothermia (feeling cold)

DIAGNOSTIC TESTS: hyponatremia; hypochloremic alkalosis, and hypokalemia; agranulocytosis; hyperuricemia; thrombocytopenia.

Secondary Actions or Rebound Effects: *angina* (chest pain); *anxiety*; *headache*; *hypertension, rebound*; *nausea*; *nervousness*; *palpitations* (pounding heartbeat); *restlessness*; *shaking or trembling of hands and fingers*; *salivation, increased*; *stomach cramps*; *sweating*; *tachycardia* (fast heartbeat); *tenseness*; *trouble in sleeping*; *vomiting*.

Clopidogrel (Systemic)

Commercial name(s): *Plavix*.

Category: Antithrombotic; Platelet aggregation inhibitor.

Conventional indications: Myocardial infarction (prophylaxis); Stroke, thromboembolic (prophylaxis); Vascular death (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; depression, mental*; prostration (in baboons).

VERTIGO: *dizziness; syncope* (fainting).

HEAD: *headache; hemorrhage, intracranial* (headache, sudden severe; weakness, sudden).

NOSE: *epistaxis* (nosebleed); *rhinitis* (runny nose).

STOMACH: *dyspepsia* (heartburn); **pain**; *hemorrhage, gastrointestinal* (vomiting of blood or material that looks like coffee grounds); *nausea; vomiting; ulcer, peptic, or gastric* (stomach pain, severe).

ABDOMEN: **pain, abdominal**; *hemorrhage, gastrointestinal* (vomiting of blood or material that looks like coffee grounds); *ulcer, peptic, or duodenal* (stomach pain, severe).

RECTUM: *constipation; diarrhea; hemorrhage, gastrointestinal* (vomiting of blood or material that looks like coffee grounds).

BLADDER: *infection, urinary tract* (frequent urination; painful or difficult urination).

KIDNEYS: *infection, urinary tract* (frequent urination; painful or difficult urination).

RESPIRATION: **infection, upper respiratory** (cough; runny nose; sneezing; sore throat); *bronchitis* (cough; shortness of breath); *dyspnea* (shortness of breath).

COUGH: *cough*.

CHEST: **pain**; *bronchitis* (cough; shortness of breath); *fibrillation, atrial*; *palpitations* (irregular heartbeat).

BACK: **pain**.

EXTREMITIES: **arthralgia** (joint pain); *cramps, leg*; *edema* (swelling of feet or lower legs); *gout* (joint pain).

SLEEP: *insomnia* (trouble in sleeping).

SKIN: **purpura** (red or purple spots on skin, varying in size from pinpoint to large bruises); *itching*; *skin rash*; *blistering*; *flaking*; *peeling*.

GENERALITIES: *hemorrhage* (bleeding); **arthralgia** (joint pain); **flu-like symptoms** (aching muscles; fever and chills; general feeling of discomfort or illness; headache); **infection, upper respiratory** (cough; runny nose; sneezing; sore throat); **pain, generalized**; *asthenia* (weakness); *fatigue* (unusual tiredness); *gout* (joint pain); *hypertension*; *hypoesthesia* (numbness or tingling); *palpitations* (irregular heartbeat); *paresthesia* (numbness or tingling); *neutropenia, including agranulocytosis* (fever, chills, sore throat, other signs of infection; ulcers, sores, or white spots in mouth); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); death (1500 or 2000 mg per kg of body weight in mice and rats; 3000 mg/kg in baboons).

LABORATORY VALUE ALERTIONS: *fibrillation, atrial*; *neutropenia, including agranulocytosis*; *thrombocytopenia*.

Clotrimazole (Oral-Local)

Commercial name(s): *Mycelex Troches*.

Category: Antifungal (oral-local).

Conventional indications: Candidiasis, oropharyngeal (treatment); Candidiasis, oropharyngeal (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MOUTH: sensations, unpleasant.

STOMACH: disturbance, gastrointestinal (abdominal or stomach cramping or pain; diarrhea) (when medication is swallowed); **nausea**; **vomiting**.

ABDOMEN: disturbance, gastrointestinal (abdominal or stomach cramping or pain; diarrhea) (when medication is swallowed).

SKIN: pruritus (itching).

Clotrimazole (Topical)

Commercial name(s): *Canesten Cream*; *Canesten Solution*; *Canesten Solution with Atomizer*; *Clotrimaderm Cream*; *Lotrimin AF Cream*; *Lotrimin AF Lotion*; *Lotrimin AF Solution*; *Lotrimin Cream*; *Lotrimin Lotion*; *Lotrimin Solution*; *Mycelex Cream*; *Mycelex Solution*; *Myclo Cream*; *Myclo Solution*; *Myclo Spray Solution*; *Neo-Zol Cream*

Category: Antifungal (topical).

Conventional indications: Candidiasis, cutaneous (treatment); Tinea corporis (treatment); Tinea cruris (treatment); Tinea pedis (treatment); Tinea versicolor (treatment); Paronychia (treatment); Tinea barbae (treatment); Tinea capitis (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *hypersensitivity* (skin rash, hives, blistering, burning, itching, peeling, redness, stinging, swelling, or other sign of skin irritation not present before therapy).

Clotrimazole and Betamethasone (Topical)

Commercial name(s): Lotriderm; Lotrisone.

Category: Antifungal-corticosteroid (topical).

Conventional indications: Tinea corporis (treatment); Tinea cruris (treatment); Tinea pedis (treatment); Candidiasis, cutaneous (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *hair, loss of, increased* (with prolonged use); suppression of the pituitary function.

FACE: *acne* (with prolonged use); *dermatitis, perioral* (redness and scaling around the mouth) (with prolonged use); *hair growth, increased* (with prolonged use); *lines, reddish purple, on face* (with prolonged use).

ABDOMEN: *lines, reddish purple, on trunk or groin* (with prolonged use).

KIDNEYS: *suppression, adrenal*; hypercorticism; insufficiency, adrenal.

CHEST: *lines, reddish purple, on trunk* (with prolonged use).

BACK: *lines, reddish purple, on trunk* (with prolonged use).

EXTREMITIES: *lines, reddish purple, on arms, or legs* (with prolonged use); *paresthesia* (numbness of the hands and feet).

SKIN: *hypersensitivity* (blistering, burning, itching, peeling, dryness, redness, or other signs of skin irritation not present before therapy); *stinging*; *urticaria* (hives); *acne* (with prolonged use); *atrophy* (thinning of skin with easy bruising) (with prolonged use); *dermatitis, contact, allergic* (rash) (with prolonged use); *folliculitis* (pus in the hair follicles) (with prolonged use); *hair growth, increased* (with prolonged use); *hair, loss of, increased* (with prolonged use); *hypopigmentation* (white spots) (with prolonged use); *lines, reddish purple*; *maceration* (softening of the skin) (with prolonged use); *oily skin* (with prolonged use); *rash*.

GENERALITIES: *hair growth, increased, especially on the face and body* (with prolonged use); *infection, secondary*; *paresthesia* (numbness of the hands and feet); *suppression, adrenal*; *swelling*; Cushing's disease; hypercorticism; insufficiency, adrenal; suppression of the pituitary function.

Clozapine (Systemic)

Commercial name(s): Clozaril.

Category: Antipsychotic.

Conventional indications: Schizophrenia (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation* (unusual anxiety, nervousness, or irritability); *akathisia* (restlessness or need to keep moving); *confusion*; *depression*, *mental*; coma; delirium (unusual excitement, nervousness, or restlessness; hallucinations) (rebound effect?).

VERTIGO: *dizziness*; **hypotension, orthostatic** (dizziness or fainting); **lightheadedness**; *syncope* (fainting).

HEAD: *headache*.

VISION: *accommodation, difficulty in* (blurred vision).

MOUTH: **hypersalivation** (increased watering of mouth) (may be profuse, very fluid, and especially prevalent during sleep); *dryness*.

STOMACH: *nausea*; **vomiting**; *heartburn*.

ABDOMEN: *discomfort, abdominal*.

RECTUM: *constipation*.

BLADDER: *urinating, trouble in*.

GENITALIA MALE: *impotence* (decreased sexual ability).

RESPIRATION: depression or failure, respiratory (slow, irregular, or troubled breathing); pneumonia, aspiration.

CHEST: **tachycardia** (fast or irregular heartbeat); *embolism, pulmonary* (chest pain; cough; fainting; fast heartbeat; sudden shortness of breath); *myocarditis* (can be fatal) (chest pain or discomfort; fast heartbeat; fever and chills; troubled breathing); arrhythmias, cardiac; pneumonia, aspiration.

EXTREMITIES: *akathisia* (restlessness or need to keep moving); *rigidity* (severe muscle stiffness); *tardive dyskinesia* (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs); *thrombosis, deep-vein* (swelling or pain in leg).

SLEEP: *drowsiness*; *insomnia* (trouble in sleeping) (rebound effect?).

FEVER: *fever*.

PERSPIRATION: *hyperhidrosis* (increased sweating).

GENERALITIES: **hypotension** (low blood pressure); **hypotension, orthostatic** (dizziness or fainting); **tachycardia** (fast or irregular heartbeat); **weight gain, unusual**; *hypertension* (dizziness; severe or continuing headaches; increase in blood pressure) (rebound effect?); *agranulocytosis* (chills; fever; sore throat; unusual tiredness or weakness); *akinesia* (absence of movement); *death*; *eosinophilia* (fever); *granulocytopenia* (chills; fever; sore throat; sores, ulcers, or white spots on lips or in mouth; unusual tiredness or weakness); *hepatitis* (dark urine; decreased appetite; nausea; vomiting; yellow eyes or skin); *hyperglycemia* (increased appetite; increased thirst; increased urination; weakness); *hypokinesia* (decrease in movement); *jaundice*; *leukopenia* (chills; fever; sore throat); *neuroleptic malignant syndrome (NMS)* (convulsions; difficult or fast breathing; fast heartbeat or irregular pulse; fever; high or low [irregular] blood pressure; increased sweating; loss of bladder control; severe muscle stiffness; unusually pale skin; unusual tiredness or weakness); *rigidity* (severe muscle stiffness); *thrombocytopenia* (unusual bleeding or bruising); *thrombosis, deep-vein* (swelling or pain in leg); *tremor* (trembling or shaking); arrhythmias, cardiac; coma.

DIAGNOSTIC TESTS: *electrocardiogram (ECG) changes*; *agranulocytosis*; *eosinophilia*; *granulocytopenia*; *hyperglycemia*; *leukopenia*; *thrombocytopenia*.

Secondary Actions or Rebound Effects: *seizures; tardive dyskinesia (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs).*

Coal Tar (Topical)

Commercial name(s): *Alphosyl; Aquatar; Balnetar; Balnetar Therapeutic Tar Bath; Cutar Water Dispersible Emollient Tar; DHS Tar Gel Shampoo; DHS Tar Shampoo; Denorex; Denorex Extra Strength Medicated Shampoo; Denorex Extra Strength Medicated Shampoo with Conditioners; Denorex Medicated Shampoo; Denorex Medicated Shampoo and Conditioner; Denorex Mountain Fresh Herbal Scent Medicated Shampoo; Doak Oil; Doak Oil Forte; Doak Oil Forte Therapeutic Bath Treatment; Doak Oil Therapeutic Bath Treatment For All-Over Body Care; Doak Tar Lotion; Doak Tar Shampoo; Doctar Hair & Scalp Shampoo and Conditioner; Doctar Shampoo; Estar; Fototar; Ionil T Plus; Lavatar; Liquor Carbonis Detergens; Medotar; Pentrax Anti-Dandruff Tar Shampoo; Pentrax Extra-Strength Therapeutic Tar Shampoo; PsoriNail Topical Solution; Psorigel; T-Gel; T/Derm Tar Emollient; T/Gel Therapeutic Conditioner; T/Gel Therapeutic Shampoo; Tar Doak; Taraphilic; Tarbonis; Tarpaste; Tarpaste `Doak`; Tegrin Lotion for Psoriasis; Tegrin Medicated Cream Shampoo; Tegrin Medicated Shampoo Concentrated Gel; Tegrin Medicated Shampoo Extra Conditioning Formula; Tegrin Medicated Shampoo Herbal Formula; Tegrin Medicated Shampoo Original Formula; Tegrin Medicated Soap for Psoriasis; Tegrin Skin Cream for Psoriasis; Tersa-Tar Mild Therapeutic Shampoo with Protein and Conditioner; Tersa-Tar Soapless Tar Shampoo; Tersa-Tar Therapeutic Shampoo; Theraplex T Shampoo; Zetar Emulsion; Zetar Medicated Antiseborrheic Shampoo; Zetar Shampoo.*

Category: Keratolytic (topical); Antipsoriatic (topical); Antiseborrheic.

Conventional indications: Dandruff (treatment); Dermatitis, seborrheic (treatment); Dermatitis, atopic (treatment); Eczema (treatment); Psoriasis (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *peeling; stinging, mild; allergic or irritant contact dermatitis, folliculitis, or pustular or keratocystic response (skin rash); irritation not present before therapy*

Cocaine (Mucosal-Local)

Category: Anesthetic-vasoconstrictor (mucosal-local).

Conventional indications: Anesthesia, local.

Primary Actions or Pathogenetic Symptoms

MIND: *agitation [Early stimulation]; apprehension [Early stimulation]; confusion [Early stimulation]; consciousness, loss of [Depression]; delirium [Advanced stimulation]; dysphoria or dysphoric agitation [Early stimulation]; elation [Early stimulation]; euphoria [Early stimulation]; excitement [Early stimulation]; hallucinations (may be auditory, gustatory, olfactory, visual (e.g., “snow lights”), and/or tactile (e.g., formication [“cocaine*

bugs”], which may induce picking or stroking movements) [Early stimulation]; *ideation, paranoid* [Early stimulation]; *inability to remain still* [Early stimulation]; *irritability* [Early stimulation]; *mood or mental changes* [Early stimulation]; *nervousness* [Early stimulation]; *psychosis* [Early stimulation]; *restlessness* [Early stimulation]; *talkativeness* [Early stimulation].

VERTIGO: *dizziness* [Early stimulation]; *lightheadedness* [Early stimulation].

HEAD: *headache, sudden* [Early stimulation].

EYE: *bulging* [Early stimulation]; *pupils, fixed, dilated* [Depression]; *pupils, large, unusually* [Early stimulation].

NOSE: **smell, loss of sense of;** *atrophy of the nasal mucosa; damage to the mucosa, ischemic; necrosis of septal tissue; perforation, septal; rhinitis, chronic* (sneezing or sniffing, continuing) (stuffy nose) (with repeated intranasal application); *sinusitis, chronic* (with repeated intranasal application).

FACE: *tics or twitching of small muscles* [Early stimulation].

MOUTH: **taste, loss of sense of.**

TEETH: *grinding* [Early stimulation].

STOMACH: *nausea* [Early stimulation]; *vomiting* [Early stimulation].

ABDOMEN: *control, bowel, loss of* [Advanced stimulation]; *pain, abdominal* [Early stimulation].

BLADDER: *control, bladder, loss of* [Advanced stimulation].

RESPIRATION: *cyanosis, ashen gray* [Depression]; *failure, respiratory* [Depression]; *infections, upper respiratory, increased risk of* (with repeated intranasal application); *rapid breathing* [Early stimulation]; *weakness, respiratory* [Advanced stimulation].

CHEST: *arrhythmias, cardiac* [Advanced stimulation]; *bradycardia; congestive heart failure* [Advanced stimulation]; *contractions, ventricular, premature* (irregular heartbeat) [Early stimulation]; *edema, pulmonary* [Depression]; *failure, cardiac* [Depression]; *fibrillation* (blue discoloration of fingernails, lips, or skin; decreased blood pressure; rapid, irregular, or weak pulse) [Advanced stimulation]; *heart rate, increased* [Early stimulation]; *ischemia, myocardial* [Advanced stimulation]; *tachycardia* [Advanced stimulation]; *weakness, cardiac* [Advanced stimulation].

EXTREMITIES: *movements, preconvulsive* [Early stimulation]; *paralysis, muscular, flaccid* [Depression]; *tics or twitching of small muscles, fingers or feet* [Early stimulation].

CHILL: *chills* [Early stimulation].

FEVER: *fever* [Early stimulation]; hyperthermia.

PERSPIRATION: *sweating, increased* [Early stimulation].

GENERALITIES: ***anesthesia; vasoconstriction;*** *blood pressure, increased* [Early stimulation]; *arrhythmias, cardiac* [Advanced stimulation]; *bradycardia; contractions, ventricular, premature* (irregular heartbeat) [Early stimulation]; *convulsions, tonic-clonic* [Advanced stimulation]; *cyanosis, ashen gray* [Depression]; *death; encephalopathy, malignant* [Advanced stimulation]; *failure, circulatory* [Depression]; *fibrillation* (blue discoloration of fingernails, lips, or skin; decreased blood pressure; rapid, irregular, or weak pulse) [Advanced stimulation]; *heart rate, increased* [Early stimulation]; *hemorrhage, CNS* [Advanced stimulation]; *hyperreflexia* [Advanced stimulation]; *infections, upper respiratory, increased risk of* (with repeated intranasal application); *ischemia, myocardial* [Advanced stimulation]; *movements, preconvulsive* [Early stimulation]; *paralysis,*

muscular, flaccid [Depression]; *reflexes, loss of* [Depression]; *responsiveness to stimuli, decreased* (reaction lack) [Advanced stimulation]; *sinusitis, chronic* (with repeated intranasal application); *status epilepticus* [Advanced stimulation]; *tachycardia* [Advanced stimulation]; *tics or twitching of small muscles, generalized* [Early stimulation]; *toxicity, acute*; acidosis, metabolic; depression, cardiovascular; convulsions; hypertension; hyperthermia.

DIAGNOSTIC TESTS: *fibrillation*; acidosis, metabolic.

Colchicine (Systemic)

Commercial name(s): *Colcrys*.

Category: Anti-inflammatory; Antigout agent; Familial Mediterranean fever suppressant; Calcium pyrophosphate deposition disease suppressant; Amyloidosis suppressant.

Conventional indications: Gouty arthritis, chronic (treatment); Gouty arthritis, acute (prophylaxis and treatment); Mediterranean fever, familial (prophylaxis and treatment); Calcium pyrophosphate deposition disease, acute (prophylaxis and treatment); Arthritis, sarcoid (treatment); Amyloidosis (treatment); Behçet's syndrome (treatment); Cirrhosis, biliary (treatment); Pericarditis, recurrent (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *hair, loss of*; edema, cerebral.

EYE: *angioedema* (large, hive-like swellings on eyelids).

FACE: *angioedema* (large, hive-like swellings on face, lips).

MOUTH: *angioedema* (large, hive-like swellings on mouth, tongue); stomatitis (sores, ulcers, or white spots on lips or in mouth).

THROAT: burning feeling.

STOMACH: **toxicity, gastrointestinal** (diarrhea; nausea or vomiting; stomach pain); *appetite, loss of*; gastroenteritis, hemorrhagic (bloody diarrhea) [Oral ingestion]; sloughing of the gastrointestinal mucosa [Oral ingestion]; vomiting.

ABDOMEN: **toxicity, gastrointestinal** (diarrhea; nausea or vomiting; stomach pain); damage, hepatocellular, possibly with necrosis; damage, intestinal, severe; gastroenteritis, hemorrhagic (bloody diarrhea) [Oral ingestion]; ileus, paralytic; sloughing of the gastrointestinal mucosa [Oral ingestion].

RECTUM: diarrhea, severe.

KIDNEYS: damage, renal (with hematuria and oliguric renal failure).

RESPIRATION: arrest, respiratory; hypoxia; respiratory distress syndrome, adult, or other forms of respiratory distress (fast, shallow breathing).

CHEST: *arrhythmias, cardiac* (with too-rapid intravenous administration); arrest, cardiac; edema, pulmonary; injury, myocardial (ST segment elevation in electrocardiogram; decreased cardiac contractility, creatine kinase elevation, hemorrhages and microinfarctions in the myocardium).

EXTREMITIES: *myopathy* (proximal muscle weakness, spontaneous activity in the electromyogram, and elevated creatine kinase values) (with prolonged or long-term use); *neuritis, median nerve, in injected arm* (pain; tenderness; feeling of burning, "crawling" or

tingling in the skin over the affected nerve) (with intravenous administration); *neuropathy* (mild numbness in fingers or toes) (with prolonged or long-term use); rhabdomyolysis (myoglobinuria; severe muscle weakness or paralysis).

FEVER: fever.

SKIN: *hair, loss of; dermatoses* (skin rash, hives); *necrosis of the skin and soft tissues* (peeling of skin) (with intravenous administration, if extravasation occurs); burning feeling.

GENERALITIES: *hair, loss of; agranulocytosis* (fever with or without chills; sores, ulcers, or white spots on lips or in mouth; sore throat) (with prolonged or long-term use); *anemia, aplastic* (unusual tiredness or weakness; headache; difficulty in breathing, exertional) (with prolonged or long-term use); *angioedema* (large, hive-like swellings on face, eyelids, mouth, lips, and/or tongue); *arrhythmias, cardiac* (with too-rapid intravenous administration); *bone marrow depression* (with prolonged or long-term use); *death; irritation, inflammation, or thrombophlebitis, localized* (with intravenous administration); *myopathy* (proximal muscle weakness, spontaneous activity in the electromyogram, and elevated creatine kinase values) (with prolonged or long-term use); *neuritis, median nerve, in injected arm* (pain; tenderness; feeling of burning, “crawling” or tingling in the skin over the affected nerve) (with intravenous administration); *neuropathy* (mild numbness in fingers or toes) (with prolonged or long-term use); *thrombocytopenia* (usually asymptomatic; rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin) (with prolonged or long-term use); bone marrow hypoplasia (agranulocytosis or leukopenia; thrombocytopenia and disseminated intravascular coagulation or other coagulation abnormalities); CNS toxicity (ascending paralysis of the CNS; convulsions; delirium); coagulation, intravascular, disseminated; damage, renal (with hematuria and oliguric renal failure); dehydration, profound; failure, multiple organ; hypocalcemia; hypokalemia; hyponatremia; hypophosphatemia; hypotension; hypovolemia; hypoxia; injury, myocardial (ST segment elevation in electrocardiogram; decreased cardiac contractility, creatine kinase elevation, hemorrhages and microinfarctions in the myocardium); metabolic acidosis; necrosis; respiratory distress syndrome, adult; rhabdomyolysis (myoglobinuria; severe muscle weakness or paralysis); septicemia; shock; vascular damage.

DIAGNOSTIC TESTS: *agranulocytosis; anemia, aplastic; bone marrow depression; thrombocytopenia*; disturbances, fluid and electrolyte; hypocalcemia; hypokalemia; hyponatremia; hypophosphatemia; hypoxia; metabolic acidosis; ST segment elevation in electrocardiogram.

Secondary Actions or Rebound Effects: leukocytosis, rebound

Colesevelam (Oral-Local)

Other commonly used names: GT31-104 GT31-104HB.

Commercial name(s): *Welchol*.

Category: Antihyperlipidemic.

Conventional indications: Hyperlipidemia (treatment).

Primary Actions or Pathogenetic Symptoms

THROAT: *pharyngitis* (congestion; cough; dryness or soreness of throat; hoarseness; trouble in swallowing).

STOMACH: *dyspepsia* (acid or sour stomach; belching; indigestion; stomach discomfort, upset, or pain).

RECTUM: *constipation*.

EXTREMITIES: *myalgia* (muscle aches or pain).

GENERALITIES: *hypolipidemia*; *myalgia* (muscle aches or pain).

DIAGNOSTIC TESTS: *hypolipidemia*.

Colestipol (Oral-Local)

Commercial name(s): *Colestid*.

Category: Antihyperlipidemic; Antipruritic (cholestasis); Antidiarrheal (postoperative colonic bile acids).

Conventional indications: Hyperlipidemia (treatment); Pruritus, associated with partial biliary obstruction (treatment); Diarrhea, due to bile acids (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

STOMACH: *belching*; *nausea*; *pain*; *vomiting*; *bleeding*, *gastrointestinal*; *ulcer*, *peptic* (black, tarry stools).

ABDOMEN: *bloating*; *bleeding*, *gastrointestinal*; *gallstones* (severe stomach pain with nausea and vomiting); *malabsorption syndrome* (especially with doses greater than 30 gr a day) (sudden loss of weight); *ulcer*, *peptic* (black, tarry stools).

RECTUM: *constipation*; *diarrhea*; *bleeding*, *gastrointestinal*.

STOOL: *steatorrhea*.

GENERALITIES: *hypolipidemia*; *malabsorption syndrome* (especially with doses greater than 30 gr a day) (sudden loss of weight).

DIAGNOSTIC TESTS: *hypolipidemia*; *gallstones*.

Colfosceril, Cetyl Alcohol, and Tyloxapol (Intratracheal-Local)

Commercial name(s): *Exosurf Neonatal*.

Category: Pulmonary surfactant.

Conventional indications: Respiratory distress syndrome, neonatal (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *echodensities*, *periventricular* (in apneic infants).

STOMACH: *gagging*.

RECTUM: *constipation*.

RESPIRATION: *apnea*; *hypoxia*.

CHEST: *air leak, pulmonary* (due to excess ventilation caused by rapid improvement in lung); *bradycardia* (< 60 beats per minute); *hemorrhage, intraventricular, grade III* (in apneic infants); *hemorrhage, pulmonary*; *tachycardia* (> 200 beats per minute).

GENERALITIES: *bradycardia* (< 60 beats per minute); *hypoxia*; *tachycardia* (> 200 beats per minute).

DIAGNOSTIC TESTS: *hypolipidemia*; *hypoxia*.

Colistin, Neomycin, and Hydrocortisone (Otic)

Commercial name(s): *Coly-Mycin Otic*; *Coly-Mycin S Otic*.

Category: Antibacterial-corticosteroid (otic).

Conventional indications: Ear canal infections, external (treatment); Otitis media, chronic suppurative (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *hypersensitivity* (itching, skin rash, redness, swelling, or other sign of irritation not present before therapy).

Colony Stimulating Factors (Systemic)

Commercial name(s): *Leukine*; *Neupogen*.

Category: Hematopoietic stimulant; Antineutropenic.

Conventional indications: Neutropenia, chemotherapy-related (treatment) [Filgrastim (rG-CSF) and sargramostim (rGM-CSF)]; Myeloid engraftment following bone marrow transplantation, promotion of (treatment adjunct) [Filgrastim]; Myeloid engraftment following bone marrow transplantation, failure or delay of (treatment) [Filgrastim and sargramostim]; Peripheral progenitor cell yield, enhancement of (treatment adjunct) [Filgrastim and sargramostim]; Myeloid engraftment following hematopoietic stem cell transplantation, promotion of (treatment adjunct) [Filgrastim and sargramostim]; Myeloid engraftment following hematopoietic stem cell transplantation, failure or delay of (treatment) [Sargramostim]; Neutropenia, AIDS-associated (treatment) [Filgrastim and sargramostim]; Myelodysplastic syndromes (treatment) [Filgrastim and sargramostim]; Neutropenia, severe chronic (treatment) [Filgrastim and sargramostim]; Neutropenia, drug-induced (treatment) [Filgrastim and sargramostim].

Primary Actions or Pathogenetic Symptoms

VERTIGO: *syncope* (dizziness or faintness) [Sargramostim].

HEAD: *headache, mild to moderate* [Filgrastim, Sargramostim].

FACE: *flushing* [Sargramostim].

MOUTH: *mucositis, decreased*.

THROAT: *mucositis, decreased*.

STOMACH: *mucositis, decreased*; *nausea*.

ABDOMEN: *mucositis, decreased*; *rupture, splenic* [Filgrastim]; *splenomegaly* [Filgrastim].

RECTUM: *mucositis, decreased.*

RESPIRATION: *shortness of breath* [Sargramostim]; *respiratory distress syndrome, adult* (ARDS) (symptoms of shortness of breath, tightness in chest, troubled breathing, and wheezing) (in neutropenic patients with sepsis) [Filgrastim]; *dyspnea* (shortness of breath).

CHEST: *effusion, pleural and/or pericardial* (shortness of breath) [Sargramostim]; *arrhythmia, supraventricular, transient* (rapid or irregular heartbeat) [Filgrastim, Sargramostim]; *pericarditis* (chest pain; shortness of breath) [Sargramostim]; *tachycardia* (rapid heartbeat).

EXTREMITIES: *arthralgias* (pain in joints) [Filgrastim, Sargramostim]; *myalgias* (pain in muscles) [Filgrastim, Sargramostim]; **pain, bone, medullary** (pain in lower back or pelvis; pain in arms or legs) [Filgrastim, Sargramostim]; *edema, peripheral* (swelling of feet or lower legs) [Sargramostim].

CHILL: *chills.*

FEVER: *fever* [Sargramostim].

SKIN: *itching* [Filgrastim, Sargramostim]; **skin rash** [Filgrastim, Sargramostim].

GENERALITIES: *hematopoietic stimulant; neutrophilia; arthralgias* (pain in joints) [Filgrastim, Sargramostim]; *myalgias* (pain in muscles) [Filgrastim, Sargramostim]; **pain, bone, medullary** (pain in lower back or pelvis; pain in arms or legs) [Filgrastim, Sargramostim]; *capillary leak syndrome* [Sargramostim]; *edema, peripheral* (swelling of feet or lower legs) [Sargramostim]; *first-dose reaction, with flushing, hypotension, and syncope* (flushing of face; dizziness or faintness) [Sargramostim]; *hypotension* (dizziness or faintness) [Sargramostim]; *leukocytosis, excessive* [Filgrastim, Sargramostim]; *redness or pain at site of subcutaneous injection* [Filgrastim, Sargramostim]; *retention, fluid* (swelling of feet or lower legs; sudden weight gain) [Sargramostim]; *weakness* [Sargramostim]; *allergic or anaphylactic reaction* (wheezing) [Filgrastim, Sargramostim]; *antibodies, neutralizing* [Sargramostim]; *arrhythmia, supraventricular, transient* (rapid or irregular heartbeat) [Filgrastim, Sargramostim]; *death; infection, decreased; Sweet's syndrome* (fever; sores on skin) [Filgrastim]; *thrombophlebitis* [Sargramostim]; *thromboses around tip of venous catheter* [Sargramostim]; *vasculitis* (sores on skin) [Filgrastim, Sargramostim]; *malaise* (general feeling of bodily discomfort); *tachycardia* (rapid heartbeat)

DIAGNOSTIC TESTS: *neutrophilia; leukocytosis, excessive* [Filgrastim, Sargramostim]; *antibodies, neutralizing* [Sargramostim]; *arrhythmia, supraventricular, transient* [Filgrastim, Sargramostim].

Conjugated Estrogens and Medroxyprogesterone for Ovarian Hormone Therapy (OHT) (Systemic)

Commercial name(s): *Premphase; Premplus; Prempro.*

Category: Estrogen-progestin; Osteoporosis prophylactic; Ovarian hormone therapy agent.

Conventional indications: Menopause, vasomotor symptoms of (treatment); Vaginitis, atrophic (treatment); Vulvar atrophy (treatment); Osteoporosis, postmenopausal (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: **depression, mental;** *lability, emotional* (crying; depersonalization; dysphoria; euphoria; mental depression; paranoia; quick to react or overreact emotionally; rapidly changing moods); *nervousness; mood changes*.

VERTIGO: **dizziness.**

HEAD: **headaches, including migraine headaches;** *cerebrovascular events, embolic* (in women receiving postmenopausal estrogens); *stroke, increased risk of*.

NOSE: **rhinitis** (stuffy nose; runny nose; sneezing); **sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

FACE: *acne; edema, peripheral* (bloating or swelling of face).

THROAT: **pharyngitis** (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: **dyspepsia** (stomach discomfort following meals); **nausea; vomiting.**

ABDOMEN: **flatulence** (passing of gas); **pain, abdominal or pelvic; cramping; obstruction, gallbladder** (yellow eyes or skin; pain or tenderness in stomach, side, or abdomen); **pancreatitis** (yellow eyes or skin; pain or tenderness in stomach, side, or abdomen).

RECTUM: **diarrhea.**

BLADDER: *cystitis-like syndrome* (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate).

GENITALIA FEMALE: **amenorrhea** (absence of menstrual periods) (usually occurring within 10 months); **bleeding pattern, uterine, changes in, including abnormal timing or amount of flow for withdrawal bleeding, breakthrough bleeding or spotting** (effects tapering off within 6 months); **candidiasis, vulvovaginal** (vaginal itching or irritation; thick, white vaginal discharge); **dysmenorrhea** (painful menstrual periods); **leukorrhea** (increase in amount of clear vaginal discharge); **vaginitis** (itching of the vagina or genital area; pain during sexual intercourse; thick, white vaginal discharge with no odor or with a mild odor); *disorder, cervix; hemorrhage, vaginal* (heavy nonmenstrual vaginal bleeding); *libido, increase in* (increase in sexual desire); *spasm, uterine* (severe cramping of the uterus); *cancer, endometrial* (change in vaginal discharge; pain or feeling of pressure in pelvis; vaginal bleeding); *cancer, ovarian* (acid or sour stomach; belching; backache; full or bloated feeling or pressure in the stomach; heartburn; indigestion; loss of appetite; stomach discomfort, upset or pain; swelling of abdominal or stomach area); *erosion, cervical* (light vaginal bleeding between periods and after intercourse); *hyperplasia, endometrial* (change in vaginal discharge; pain or feeling of pressure in pelvis; vaginal bleeding); *leiomyomata, uterine, increase in size* (abdominal bloating; pelvic pain; stomach pain); *premenstrual-like syndrome* (abdominal bloating and cramping; headache; pelvic pain); *secretion, cervical, change in amount* (change in amount of vaginal discharge; bloody vaginal discharge).

CHEST: **enlargement, breast; pain, breast; tenderness, breast;** *pain; tumors, breast* (breast lumps; discharge from breast); *embolism, pulmonary, increased risk of; infarction, myocardial, increased risk of*.

BACK: **pain.**

EXTREMITIES: **arthralgia** (joint pain); *cramps, leg*; *edema, peripheral* (bloating or swelling of face, ankles, or feet; unusual weight gain or loss); *hypertonia* (tense muscles).

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep); *trouble in sleeping*.

SKIN: **pruritus** (itching); *acne*; *skin rash*.

GENERALITIES: **arthralgia** (joint pain); **asthenia** (lack or loss of strength); **flu syndrome** (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **pain**; **sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); **tiredness, unusual**; **vasodilation** (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or light-headedness; sweating); *edema, peripheral* (bloating or swelling of face, ankles, or feet; unusual weight gain or loss); *hypertension* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); *hypertonia* (tense muscles); *tumors, breast* (breast lumps; discharge from breast); *weight gain*; *cancer, endometrial* (change in vaginal discharge; pain or feeling of pressure in pelvis; vaginal bleeding); *cancer, ovarian* (acid or sour stomach; belching; backache; full or bloated feeling or pressure in the stomach; heartburn; indigestion; loss of appetite; stomach discomfort, upset or pain; swelling of abdominal or stomach area); *hepatitis* (yellow eyes or skin; pain or tenderness in stomach, side, or abdomen); *infarction, myocardial, increased risk of*; *pancreatitis* (yellow eyes or skin; pain or tenderness in stomach, side, or abdomen); *thrombosis, venous, increased risk of*.

Copper Supplements (Systemic)

Commercial name(s): *Cupri-Pak*.

Category: Nutritional supplement (mineral).

Conventional indications: Copper deficiency (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

MIND: coma.

MOUTH: taste, metallic.

STOMACH: discomfort, epigastric; pain, epigastric; vomiting.

ABDOMEN: hepatotoxicity (black or bloody vomit; severe or continuing headache; loss of appetite; severe or continuing nausea; pain in abdomen; yellow eyes or skin).

RECTUM: diarrhea.

URINE: hematuria (blood in urine; lower back pain; pain or burning while urinating).

GENERALITIES: coma; hypotension (dizziness or fainting); jaundice (yellow eyes or skin).

DIAGNOSTIC TESTS: hematuria.

Corticotropin Ovine (Systemic-Diagnostic)

Commercial name(s): ACTHREL.

Category: Diagnostic aid (ACTH production).

Conventional indications: Adrenocorticotrophic hormone (ACTH) production, origin of (diagnosis).

Primary Actions or Pathogenetic Symptoms

FACE: flushing of face, transient, *prolonged*, or severe.

EXTERNAL THROAT: flushing of neck, transient, *prolonged*, or severe.

RESPIRATION: *dyspnea* (shortness of breath); *urge to take a deep breath*.

CHEST: flushing of upper chest, transient, *prolonged*, or severe; *tachycardia* (fast heartbeat); *tightness in chest*; cardiovascular changes.

GENERALITIES: flushing; *hypotension*; *tachycardia* (fast heartbeat); cardiovascular changes.

Corticosteroids (Inhalation-Local)

Commercial name(s): AeroBid; AeroBid-M; Azmacort; BecloDisk; Becloforte; Beclovent; Beclovent Rotacaps; Bronalide; Pulmicort Nebuamp; Pulmicort Respules; Pulmicort Turbuhaler; QVAR; Vanceril; Vanceril 84 mcg Double Strength.

Category: Anti-inflammatory (inhalation); Antiasthmatic.

Conventional indications: Asthma, bronchial, chronic (treatment) [Beclomethasone, budesonide, flunisolide, and triamcinolone].

Primary Actions or Pathogenetic Symptoms

MIND: *aggressive reactions*; *anxiety*; *behavioral changes/depression*; *psychosis*; *restlessness* (mood or mental changes).

VERTIGO: *vertigo* (dizziness; sense of constant movement of self or surroundings); *syncope* (fainting).

HEAD: headache.

EYE: *angioedema* (swelling of eyelids); *cataracts* (blurred vision or other changes in vision); *infection*.

EAR: *infection*.

NOSE: *epistaxis* (nosebleeds); *sinus problems*; *infection*, *sinus*; *smell*, *loss of*.

FACE: *edema* (swelling of face); *angioedema* (swelling of face, lips).

MOUTH: *dryness*; *candidiasis or thrush, oropharyngeal* (creamy white, curd-like patches in mouth or throat; pain when eating or swallowing); *taste, unpleasant*; *taste, loss of*.

THROAT: *dryness*; *dysphonia* (voice changes); *irritation*; *pharyngitis* (sore throat, hoarseness); *candidiasis or thrush, oropharyngeal* (creamy white, curd-like patches in mouth or throat; pain when eating or swallowing); *candidiasis, esophageal* (pain or burning in chest).

STOMACH: *nausea*; *pain*; *vomiting*; *gastroenteritis* (diarrhea; nausea; stomach pain).

ABDOMEN: *pain, abdominal; gastroenteritis* (diarrhea; nausea; stomach pain); *insufficiency, adrenal* (unusual tiredness or weakness; feeling faint; loss of appetite; nausea or vomiting; diarrhea; increased skin pigmentation); adrenal suppression.

RECTUM: *constipation; diarrhea; hemorrhage, rectal* (bleeding from rectum or bloody stools).

BLADDER: *cystitis* (burning or pain while urinating; blood in urine; frequent urge to urinate); *infection, urinary tract*.

KIDNEYS: *infection, urinary tract*.

GENITALIA FEMALE: *menstrual disturbances* (menstrual changes).

LARYNX AND TRACHEA: *laryngitis*.

RESPIRATION: *bronchospasm* (shortness of breath; troubled breathing; tightness in chest; wheezing); *pneumonia*.

COUGH: *cough*.

CHEST: *pain; palpitations* (irregular or fast heartbeat); *tachycardia* (irregular or fast heartbeat); *infiltrates, pulmonary; pneumonia*.

EXTREMITIES: *edema* (swelling of fingers, ankles, feet, or lower legs); *osteoporosis* (pain in back, ribs, arms, or legs).

SLEEP: *insomnia* (trouble in sleeping).

FEVER: *fever*.

SKIN: *hives; itching; rash; urticaria*.

GENERALITIES: **cold-like symptoms;** *bruising; edema* (swelling of face, fingers, ankles, feet, or lower legs; weight gain); *fatigue* (unusual tiredness or weakness); *malaise* (general feeling of discomfort or illness); *palpitations* (irregular or fast heartbeat); *sinus problems* (sinusitis); *tachycardia* (irregular or fast heartbeat); *weight gain; eosinophilia; growth inhibition* (in children); *insufficiency, adrenal* (unusual tiredness or weakness; feeling faint; loss of appetite; nausea or vomiting; diarrhea; increased skin pigmentation); *hypercorticism* (increased fat deposits in face, neck, and trunk); *hyperglycemia* (frequent urination; unusual thirst); *hypersensitivity reactions* (such as angioedema (swelling of face, lips or eyelids), bronchospasm (severe wheezing or troubled breathing), rash or urticaria (hives)); *infection, flu like, viral, or yeast; infection, higher risk of* (immunosuppressant doses); *numbness; osteoporosis* (pain in back, ribs, arms, or legs); adrenal suppression; hypothalamic-pituitary-adrenal (HPA) function, suppression of.

DIAGNOSTIC TESTS: *eosinophilia; hyperglycemia* (frequent urination; unusual thirst); *osteoporosis*.

Secondary Actions or Rebound Effects: *bronchospasm* (shortness of breath; troubled breathing; tightness in chest; wheezing).

Corticosteroids (Nasal)

Commercial name(s): *Beconase; Beconase AQ; Dexacort Turbinaire; Flonase; Nasacort; Nasacort AQ; Nasalide; Nasarel; Nasonex; Rhinalar; Rhinocort; Rhinocort Aqua; Rhinocort Turbuhaler; Vancenase; Vancenase AQ 84 mcg; Vancenase pockethaler*.

Category: Anti-inflammatory (steroidal), nasal; Corticosteroid (nasal).

Conventional indications: Rhinitis, perennial allergic (treatment); Rhinitis, seasonal allergic (treatment); Rhinitis, seasonal (prophylaxis); Rhinitis, vasomotor nonallergic (treatment); Allergic disorders, nasal (treatment); Inflammatory conditions, noninfectious, nasal (treatment); Polyps, nasal (treatment); Polyps, nasal, postsurgical recurrence of (prophylaxis) [Beclomethasone, budesonide nasal solution, dexamethasone, flunisolide, and triamcinolone]; Rhinitis, vasomotor (treatment) [Budesonide].

Primary Actions or Pathogenetic Symptoms

MIND: lethargy (unusual tiredness or weakness) [Beclomethasone (monohydrate), budesonide, dexamethasone, and flunisolide, fluticasone].

VERTIGO: dizziness [Beclomethasone (monohydrate), Budesonide, Dexamethasone, and Flunisolide]; light-headedness [Beclomethasone (monohydrate), budesonide, dexamethasone, and flunisolide].

HEAD: headache [Beclomethasone, Triamcinolone] (less frequent with Dexamethasone, Fluticasone, Mometasone).

EYE: cataracts (blindness; blurred vision; discharge or redness of the eye; eye pain) (rare with Beclomethasone) [Dexamethasone]; glaucoma (blindness; blurred vision; discharge or redness of the eye; eye pain) (rare with Beclomethasone) [Dexamethasone]; infection, secondary ocular, fungal or viral (blindness; blurred vision; discharge or redness of the eye; eye pain) [Dexamethasone]; optic nerve damage (blindness; blurred vision; discharge or redness of the eye; eye pain); watery eyes, continuing [Beclomethasone (monohydrate), dexamethasone, and flunisolide]; conjunctivitis (blindness; blurred vision; discharge or redness in the eye, eyelid, or inner lining of the eyelid; eye pain) [Beclomethasone]; hypertension, ocular (eye pain; nausea; vomiting; gradual loss of vision); ophthalmic changes (blindness; blurred vision; eye pain; dry and irritated eyes) [Fluticasone].

HEARING: tinnitus (ringing in the ears) [Beclomethasone].

NOSE: burning, dryness, or other irritation inside the nose, mild and transient; crusting inside nose (bloody mucus); epistaxis (unexplained nosebleeds); smell, loss of sense of [Dexamethasone, flunisolide]; ulceration of nasal mucosa (sores inside nose) (rare with Beclomethasone); candidiasis, nasal (white patches inside nose); irritation inside nose [Triamcinolone]; perforation, nasal septal (bloody mucus or unexplained nosebleeds).

FACE: lesions, acneiform (acne).

MOUTH: taste, loss of sense of [Dexamethasone, Flunisolide].

THROAT: irritation [Beclomethasone, Flunisolide]; discomfort [Triamcinolone]; hoarseness [Beclomethasone (monohydrate), Dexamethasone, and Flunisolide]; itching [Budesonide]; sore throat; candidiasis, pharyngeal (white patches in throat).

STOMACH: appetite, increased [Dexamethasone]; gastrointestinal changes (lower abdominal or stomach pain and burning; stomach bloating) [Dexamethasone]; hiccups [Dexamethasone]; nausea [Beclomethasone (monohydrate), Budesonide, Dexamethasone, Flunisolide, Fluticasone]; pain (rare with Fluticasone) [Beclomethasone (monohydrate), Dexamethasone, Flunisolide]; vomiting [Beclomethasone (monohydrate), Budesonide, Dexamethasone, Flunisolide, Fluticasone].

ABDOMEN: gastrointestinal changes (lower abdominal or stomach pain and burning; stomach bloating) [Dexamethasone]; pain, abdominal (stomach pain) [Fluticasone].

RECTUM: diarrhea [Fluticasone].

GENITALIA FEMALE: menstrual changes.

COUGH: cough [Beclomethasone (monohydrate), Budesonide, Dexamethasone, Flunisolide, Fluticasone].

CHEST: cardiovascular changes (heart attack, high blood pressure, or weak heart) [Dexamethasone].

EXTREMITIES: musculoskeletal changes (bone fractures; muscle wasting and weakness) [Dexamethasone]; thromboembolism (tingling or swelling in hands, lower legs, or feet) [Dexamethasone]; myalgia (muscle pain) [Beclomethasone].

FEVER: fever [Fluticasone].

SKIN: dermatological changes (flushing; impaired wound healing; suppressed reaction to skin tests) [Dexamethasone]; urticaria (hives) (rare with Budesonide) [Dexamethasone]; dermatitis (rash) [Budesonide]; lesions, acneiform (acne).

GENERALITIES: disturbances, fluid and electrolyte (dehydration or extreme thirst; water retention) [Dexamethasone]; disturbances, neurological (headache; seizures) [Dexamethasone]; endocrine changes (suppressed growth in children) [Dexamethasone]; hypersensitivity reaction, delayed or immediate (large hives; rash; shortness of breath or troubled breathing; swelling of eyelids, face, or lips) (rare with Fluticasone) [Beclomethasone]; malaise (general unwell feeling) [Dexamethasone]; musculoskeletal changes (bone fractures; muscle wasting and weakness) [Dexamethasone]; thromboembolism (tingling or swelling in hands, lower legs, or feet) [Dexamethasone]; weight gain [Dexamethasone]; flu-like symptoms [Fluticasone]; hypercorticism (blurred vision, bone fractures, excess facial hair growth in females, fullness or rounding of face, neck, and trunk, hypertension, increased thirst and urination, impotence in males, lack of menstrual periods, muscle wasting or weakness); myalgia (muscle pain) [Beclomethasone]; suppression, hypothalamic-pituitary-adrenal (HPA) axis (with usual doses of nasal Dexamethasone, greater-than-recommended doses of Beclomethasone, Budesonide Flunisolide, Fluticasone or Triamcinolone); Cushing's syndrome (blurred vision, increased thirst, and increased urination; bone fractures; excess facial hair growth in females; fullness or rounding of the face, neck, and trunk; high blood pressure; impotence in males; muscle wasting and weakness).

DIAGNOSTIC TESTS: disturbances, fluid and electrolyte.

Secondary Actions or Rebound Effects: sneezing attacks [Beclomethasone, Flunisolide]; congestion, sinus (stuffy nose or headache) [Triamcinolone]; allergic reaction or bronchial asthma (shortness of breath, troubled breathing, tightness in chest, hives, or wheezing) [Dexamethasone, Fluticasone]; rhinorrhea, continuing (runny nose) [Beclomethasone (monohydrate), budesonide, dexamethasone, and flunisolide]; runny nose (rare with Fluticasone) [Triamcinolone]; stuffy nose, continuing [Beclomethasone (monohydrate), budesonide, dexamethasone, and flunisolide]; bronchitis (cough) [Fluticasone]; burning or stinging, continuing, after use of spray [Triamcinolone]; rhinitis, atrophic (bad smell; dry or stuffy nose; headache behind eye sockets) [Beclomethasone]; wheezing [Beclomethasone].

Corticosteroids (Ophthalmic)

Commercial name(s): *AK-Dex; AK-Pred; AK-Tate; Baldex; Betnesol; Cortamed; Decadron; Dexair; Dexotic; Diodex; Econopred; Econopred Plus; Eflone; FML Forte; FML Liquifilm; FML S.O.P; Flarex; Fluor-Op; HMS Liquifilm; I-Pred; Inflamase Forte; Inflamase Mild; Lite Pred; Maxidex; Ocu-Dex; Ocu-Pred; Ocu-Pred Forte; Ocu-Pred-A; Ophtho-Tate; PMS-Dexamethasone Sodium Phosphate; Pred Forte; Pred Mild; Predair; Predair A; Predair Forte; R.O.-Dexasone; Spersadex; Storz-Dexa; Ultra Pred.*

Category: Corticosteroid (ophthalmic); Anti-inflammatory (steroidal), ophthalmic.

Conventional indications: Ophthalmic disorders (treatment); Allergic disorders, ophthalmic (treatment) [Betamethasone; Dexamethasone; Fluorometholone; Hydrocortisone; Prednisolone]; Anterior segment disease, inflammatory (treatment) [Betamethasone; Dexamethasone; Fluorometholone; Hydrocortisone; Prednisolone]; Conjunctivitis, allergic (treatment); Corneal injuries (treatment) [Betamethasone; Dexamethasone; Fluorometholone; Hydrocortisone; Prednisolone]; Cyclitis (treatment) [Betamethasone; Dexamethasone; Fluorometholone; Hydrocortisone; Prednisolone]; Episcleritis (treatment); Iridocyclitis (treatment); Keratitis, herpes zoster (treatment) [Dexamethasone; Fluorometholone; Hydrocortisone; Medrysone; Prednisolone]; Keratitis not associated with herpes simplex or fungal infection (treatment); Keratitis, punctate, superficial (treatment); Keratitis, vernal (treatment); Keratoconjunctivitis, allergic (treatment); Keratoconjunctivitis, vernal (treatment); Ocular infections, superficial (treatment adjunct); Ocular sensitivity to epinephrine (treatment); Ophthalmia sympathetic (treatment); Rosacea, ocular (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: burning; cataract, subcapsular, posterior; damage, optic nerve; glaucoma; hypertension, ocular; infection, ocular, secondary; perforation, globe (decreased vision; watering of the eyes); redness; stinging; thinning, corneal (decreased vision; watering of the eyes); watering of the eyes; healing, corneal, retarded (frequent or intensive use).

VISION: **blurred vision, temporary, mild**; acuity and visual field defects (gradual blurring or loss of vision; eye pain; nausea; vomiting).

ABDOMEN: *adrenal suppression* (in children).

GENERALITIES: *adrenal suppression* (in children).

Corticosteroids (Otic)

Commercial name(s): *Betnesol; Decadron.*

Category: Corticosteroid (otic); Anti-inflammatory (steroidal), otic.

Conventional indications: Otitis externa, allergic (treatment), Otitis, infective (treatment adjunct), Lichen simplex chronicus, localized (treatment), Otitis externa, eczematoid, chronic (treatment) or Otitis externa, seborrheic (treatment) [Dexamethasone and betamethasone].

Primary Actions or Pathogenetic Symptoms

EYE: keratitis, bacterial (blurred vision).

EAR: burning; infections, fungal, persistent; stinging.

STOMACH: gastrointestinal changes (stomach bloating; continual stomach pain or burning, nausea or vomiting; black or tarry stools).

ABDOMEN: gastrointestinal changes (stomach bloating; continual stomach pain or burning, nausea or vomiting; black or tarry stools).

EXTREMITIES: musculoskeletal changes (muscle weakness; bone fractures); thromboembolism (breathing difficulties; chest pain; fainting; tingling in arms and lower legs or feet); wasting, muscle.

SKIN: dermatological changes (flushing; impaired wound healing; increased sweating; suppressed reaction to skin tests; thin, fragile skin).

GENERALITIES: disturbances, fluid or electrolyte (high blood pressure; rapid weight gain; swelling of feet or lower legs); Cushing's syndrome (excess hair growth in females; filling or rounding out of the face; high blood pressure; impotence in males; muscle wasting and weakness; bone fractures); diabetes mellitus (decreased or blurred vision; frequent urination; increased thirst); endocrine disturbances (menstrual changes; anorexia, low blood pressure, weight loss or weakness; suppressed growth in children); hypokalemic syndrome (irregular heartbeat; muscle cramps or pain; unusual tiredness or weakness); musculoskeletal changes (muscle weakness; bone fractures); neurological changes (seizures; vertigo and headache); thromboembolism (breathing difficulties; chest pain; fainting; tingling in arms and lower legs or feet); wasting, muscle.

DIAGNOSTIC TESTS: disturbances, fluid and electrolyte; hypokalemic syndrome.

Corticosteroids (Rectal)

Commercial name(s): *Anu-Med HC; Anucort-HC; Anuprep HC; Anusol-HC; Anutone-HC; Anuzone-HC; Betnesol; Cort-Dome; Cortenema; Cortifoam; Cortiment-10; Cortiment-40; Entocort; Hemorrhoidal HC; Hemril-HC Uniserts; Hycort; Proctocort; Proctosol-HC; Rectocort; Rectosol-HC; Rectovalone.*

Category: Corticosteroid (rectal); Anti-inflammatory, steroidal (rectal).

Conventional indications: Colitis, ulcerative (treatment); Cryptitis (treatment), Hemorrhoids (treatment) or Proctitis, factitial (treatment) [Hydrocortisone suppositories]; Pruritus, anogenital (treatment) [Hydrocortisone rectal dosage forms]; Crohn's disease (treatment) [Hydrocortisone enema].

Primary Actions or Pathogenetic Symptoms

MIND: psychic disturbances (depression; false sense of well-being; mood swings; personality changes); psychosis.

VERTIGO: vertigo (dizziness; sensation of spinning).

HEAD: folliculitis (painful, red or itchy, pus-containing blisters in hair follicles); hair, thinning on scalp; headache; hirsutism (unusual increase in hair growth, especially on the face); hypertrichosis (unusual increase in hair growth, especially on the face); pressure, intracranial, increased (headache; insomnia; unusual tiredness or weakness).

EYE: cataracts, posterior subcapsular (gradual blurring or loss of vision); glaucoma with possible damage to optic nerves (blurred vision or other change in vision; eye pain);

infection, ocular, secondary, fungal or viral (blurred vision or other change in vision; eye pain; redness of eye; sensitivity of eye to light; tearing).

FACE: *acne; filling or rounding out of the face; hirsutism* (unusual increase in hair growth, especially on the face); *hypertrichosis* (unusual increase in hair growth, especially on the face); *striae* (reddish purple lines on face).

STOMACH: *appetite, increase in; nausea; anorexia* (loss of appetite) [Tixocortol] (rebound effect?); *ulcer, peptic* (stomach pain).

ABDOMEN: *flatulence* (passing of gas) [Budesonide]; *adrenal suppression; pancreatitis* (abdominal pain; chills; nausea or vomiting); *striae* (reddish purple lines on trunk, or groin); *ulcer, peptic* (stomach pain).

RECTUM: *diarrhea; irritation* (rectal bleeding, burning, dryness, itching, or pain not present before therapy); *tenesmus* (straining while passing stool) [Tixocortol].

KIDNEYS: *adrenal insufficiency, acute*

GENITALIA MALE: *impotence* (unusual decrease in sexual desire or ability in men).

GENITALIA FEMALE: *menstrual irregularities.*

CHEST: *striae* (reddish purple lines on trunk).

BACK: *backache; hunchback; striae* (reddish purple lines on trunk).

EXTREMITIES: *fractures, bone; osteopenia; osteoporosis; striae* (reddish purple lines on arms, legs); *weakness, muscle.*

SLEEP: *insomnia* (trouble in sleeping).

CHILL: *chills.*

FEVER: *fever.*

PERSPIRATION: *sweating, increased.*

SKIN: *dermatitis, contact, allergic* (burning and itching of skin); *dry, scaly skin; folliculitis* (painful, red or itchy, pus-containing blisters in hair follicles); *hypopigmentation* (lightened skin color); *skin rash; thin, fragile skin; acne; hirsutism* (unusual increase in hair growth, especially on the face); *hypertrichosis* (unusual increase in hair growth, especially on the face); *striae* (reddish purple lines on arms, face, legs, trunk, or groin).

GENERALITIES: *glucose tolerance, decreased; infection, secondary; neuropathy* (sensation of pins and needles; stabbing pain); *weight gain, unusual; adrenal suppression; angitis, necrotizing* (chills; coughing; coughing up blood; headache; loss of appetite; pain in joints or muscles; shortness of breath; skin rash; unusual tiredness; unusual weight loss); *Cushing's syndrome; ecchymosis* (nonelevated blue or purplish patch on the skin); *fractures, bone; growth suppression* (in children); *healing, wound, impaired; hirsutism* (unusual increase in hair growth, especially on the face); *hypertension; hypertrichosis* (unusual increase in hair growth, especially on the face); *hypokalemia* (dryness of mouth; increased thirst; irregular heartbeat; mood or mental changes; muscle cramps or pain; nausea or vomiting; unusual tiredness or weakness; weak pulse); *infection, resistance to, decreased; osteopenia; osteoporosis; pancreatitis* (abdominal pain; chills; nausea or vomiting); *striae* (reddish purple lines on trunk, or groin); *retention, fluid or sodium* (rapid weight gain; swelling of feet or lower legs); *thrombophlebitis* (pain or discomfort over vein); *tiredness or weakness, unusual* [Tixocortol]; *weakness, muscle; weight loss, unusual* [Tixocortol] (rebound effect?).

DIAGNOSTIC TESTS: *fractures, bone; hypokalemia* (dryness of mouth; increased thirst; irregular heartbeat; mood or mental changes; muscle cramps or pain; nausea or vomiting; unusual tiredness or weakness; weak pulse); *osteopenia; osteoporosis*.

Corticosteroids (Topical)

Commercial name(s): 9-1-1; Aclovate; Acticort 100; Aeroseb-Dex; Aeroseb-HC; Ala-Cort; Ala-Scalp HP; Allercort; Alphaderm; Alphatrex; Anusol-HC; Aristocort; Aristocort A; Aristocort C; Aristocort D; Aristocort R; Bactine; Barriere-HC; Beben; Beta-HC; Beta-Val; Betacort Scalp Lotion; Betaderm; Betaderm Scalp Lotion; Betatrex; Betnovate; Betnovate-1/2; Bio-Syn; CaldeCORT Anti-Itch; CaldeCORT Light; Carmol-HC; Celestoderm-V; Celestoderm-V/2; Cetacort; Cloderm; Cordran; Cordran SP; Cormax; Cort-Dome; Cortacet; Cortaid; Cortate; Cortef; Cortef Feminine Itch; Corticaine; Corticreme; Cortifair; Cortoderm; Cortril; Cutivate; Cyclocort; Decaderm; Decadron; Decaspray; Delacort; Delta-Tritex; Dermabet; Dermacort; Dermarest DriCort; Dermatop; DermiCort; Dermovate; Dermovate Scalp Lotion; Dermtex HC; DesOwen; Diprolene; Diprolene AF; Diprosone; Drenison; Drenison-1/4; Ectosone Mild; Ectosone Regular; Ectosone Scalp Lotion; Elocorn; Elocon; Emo-Cort; Emo-Cort Scalp Solution; Epifoam; Eumovate; Florone; Florone E; Fluocet; Fluocin; Fluoderm; Fluolar; Fluonid; Fluonide; Flurosyl; Flutex; FoilleCort; Gly-Cort; Gynecort; Gynecort 10; Halog; Halog-E; Hi-Cor 1.0; Hi-Cor 2.5; Hyderm; Hydro-Tex; Hytone; Kenac; Kenalog; Kenalog in Orabase; Kenalog-H; Kenonel; LactiCare-HC; Lanacort; Lanacort 10; Lemoderm; Licon; Lidemol; Lidex; Lidex-E; Locacorten; Locoid; Luxiq; Lyderm; Maxiflor; Maximum Strength Cortaid; Maxivate; Metaderm Mild; Metaderm Regular; MyCort; Nerisone; Nerisone Oily; Novobetamet; Novohydrocort; Nutracort; Occlucort; Olux Foam; Orabase-HCA; Oracort; Oralone; Pandel; Penecort; Pentacort; Pharma-Cort; Prevex B; Prevex HC; Propaderm; Psorcon; Rederm; Rhulicort; S-T Cort; Sarna HC 1.0%; Sental; Synacort; Synalar; Synalar-HP; Synamol; Synemol; Teladar; Temovate; Temovate E; Temovate Scalp Application; Texacort; Topicort; Topicort LP; Topicort Mild; Topilene; Topisone; Topsy; Triacet; Triaderm; Trianide Mild; Trianide Regular; Triderm; Tridesilon; Ultravate; Unicort; Uticort; Valisone; Valisone Reduced Strength; Valisone Scalp Lotion; Valnac; Vanos; Westcort.

Category: Corticosteroid (topical); Anti-inflammatory, steroidal (topical).

Conventional indications: Alopecia areata; Dermatitis, atopic, mild to severe; Dermatitis, contact; Dermatitis, exfoliative, generalized; Dermatitis, nummular, mild to severe; Dermatitis, seborrheic, facial and intertriginous areas; Dermatitis, other forms of, mild to severe; Dermatoses, inflammatory, other, mild to severe; Granuloma annulare; Intertrigo; Keloids, reduction of associated itching; Lichen planus; Lichen planus, facial and intertriginous areas; Lichen simplex chronicus; Lichen striatus; Lupus erythematosus, discoid, facial and intertriginous areas; Lupus erythematosus, discoid and subacute cutaneous; Myxedema, pretibial. Necrobiosis lipoidica diabetorum; Pemphigoid; Pemphigus; Pityriasis rosea; Polymorphous light eruption; Pruritus, anogenital; Pruritus senilis; Psoriasis; Psoriasis, facial and intertriginous areas; Sarcoidosis; Sunburn; Xerosis,

inflammatory phase; Oral lesions, inflammatory or ulcerative (treatment) [Hydrocortisone acetate]; Phimosis.

Primary Actions or Pathogenetic Symptoms

HEAD: *hair, loss of, unusual* (especially on the scalp) (rebound effect?); *hirsutism or hypertrichosis* (unusual increase in hair growth).

EYE: *cataracts, posterior subcapsular* (gradual blurring or loss of vision) (reported with use of systemic corticosteroids; caution is advised with use of high- and very high-potency topical corticosteroids in periorbital area); *glaucoma, secondary* (eye pain; gradual decrease in vision; nausea; vomiting) (with use of high- and very high-potency topical corticosteroids in periorbital area).

FACE: *telangiectasia* (raised, dark red, wart-like spots on skin, especially when used on the face); *dermatitis, perioral* (irritation of skin around mouth); *eruptions, acneiform* (acne or oily skin, especially when used on the face); *hirsutism or hypertrichosis* (unusual increase in hair growth, especially on the face); *striae* (reddish purple lines on face).

STOMACH: *ulcer, gastric* (loss of appetite; nausea; stomach bloating, burning, cramping, or pain; vomiting; weight loss).

ABDOMEN: *striae* (reddish purple lines on trunk, or groin).

KIDNEYS: *depletion, protein* (muscle weakness).

URINE: *glycosuria*.

CHEST: *striae* (reddish purple lines on trunk).

BACK: *striae* (reddish purple lines on trunk).

EXTREMITIES: *numbness in fingers*; *edema* (swelling of feet or lower legs); *striae* (reddish purple lines on arms, legs).

SKIN: *atrophy* (thinning of skin with easy bruising, especially when used on facial or intertriginous areas); *burning, dryness, irritation, itching, or redness of skin, mild and transient*; *folliculitis, furunculosis, pustules, pyoderma, or vesiculation* (painful, red or itchy, pus-containing blisters in hair follicles); *infection, skin, secondary*; *purpura* (blood-containing blisters on skin); *rash, minor and transient*; *redness or scaling of skin lesions, increased, mild and transient*; *stripping of epidermal layer* [Tape dosage forms]; *telangiectasia* (raised, dark red, wart-like spots on skin, especially when used on the face); *atrophy, subcutaneous tissue*; *eruptions, acneiform* (acne or oily skin, especially when used on the face); *hair, loss of, unusual* (especially on the scalp) (rebound effect?); *hirsutism or hypertrichosis* (unusual increase in hair growth, especially on the face); *hypopigmentation* (lightened skin color), *or other changes in skin*; *laceration* (tearing of skin); *maceration* (softening of skin); *miliaria rubra* (burning and itching of skin with pinhead-sized red blisters); *pigmentation*; *stinging, mild and temporary* (when foam, gel, lotion, solution, or aerosol form of medication is applied); *striae* (reddish purple lines on arms, face, legs, trunk, or groin).

GENERALITIES: *hyperesthesia* (increased skin sensitivity); *telangiectasia* (raised, dark red, wart-like spots on skin, especially when used on the face); *Cushing's syndrome* (backache; filling or rounding out of the face; irritability; menstrual irregularities; mental depression; in men - unusual decrease in sexual desire or ability; unusual tiredness or weakness); *depletion, protein* (muscle weakness); *ecchymosis* (unusual bruising); *edema* (increased blood pressure; rapid weight gain; swelling of feet or lower legs); *hair, loss of*,

unusual (especially on the scalp) (rebound effect?); *hirsutism* or *hypertrichosis* (unusual increase in hair growth, especially on the face); hypercorticism; *hyperglycemia*; *hypokalemic syndrome* (irregular heartbeat; loss of appetite; muscle cramps or pain; nausea; severe weakness of extremities and trunk; vomiting); *infection, aggravation of, suppression, hypothalamic-pituitary-adrenal (HPA) axis.*

DIAGNOSTIC TESTS: *depletion, protein* (muscle weakness); *glycosuria; hyperglycemia; hypokalemic syndrome.*

Secondary Actions or Rebound Effects: *dermatitis, contact, allergic* (burning and itching of skin; apparent chronic therapeutic failure); *hair, loss of, unusual* (especially on the scalp).

Corticosteroids and Acetic Acid (Otic)

Commercial name(s): *Vosol HC.*

Category: Corticosteroid-antiseptic (otic); Anti-inflammatory (steroidal), otic

Conventional indications: Ear canal infections, external (treatment); Ear canal infections, external (prophylaxis) [Hydrocortisone and acetic acid combination]; Otitis externa, eczematoid, chronic (prophylaxis and treatment) [Hydrocortisone and acetic acid combination]; Otitis externa, seborrheic (prophylaxis and treatment) [Hydrocortisone and acetic acid combination].

Primary Actions or Pathogenetic Symptoms

EAR: *burning, irritation, itching, or stinging in the ear.*

STOMACH: *anorexia* (in children) (rebound effect?).

GENERALITIES: *weakness* (in children); *weight loss* (in children) (rebound effect?).

Corticosteroids Glucocorticoid Effects (Systemic)

Commercial name(s): *A-Hydrocort; A-MethaPred; A-hydroCort; Acetocot; Amcort; Apo-Prednisone; Aristocort; Aristocort Forte; Aristocort Intralesional; Aristopak; Aristospan; Articulose-50; Articulose-L.A.; Betnesol; Celestone; Celestone Phosphate; Celestone Soluspan; Cinalone 40; Cinonide 40; Clinacort; Clinalog; Cordrol; Cortastat; Cortastat 10; Cortastat LA; Cortef; Cortisone Acetate-ICN; Cortone; Cortone Acetate; Cotelone; Decadron; Decadron Phosphate; Delta-Cortef; Deltasone; Depo-Medrol; Deronil; Dexamethasone Intensol; Dexasone; Dexasone L.A.; Dexone LA; Entocort; Hexadrol Phosphate; Hydrocortone; Hydrocortone Acetate; Hydrocortone Phosphate; Ken-Jec 40; Kenacort; Kenacort Diacetate; Kenaject-40; Kenalog-10; Kenalog-40; Key-Pred; Key-Pred SP; Liquid Pred; Medrol; Meprolone; Meticorten; Nor-Pred T.B.A.; Oradexon; Orasone 1; Orasone 10; Orasone 20; Orasone 5; Orasone 50; Pediapred; Pred-Ject-50; Pred-Pak 45; Pred-Pak 79; Predacort 50; Predalone 50; Predalone T.B.A.; Predate S; Predate TBA; Predate-50; Predcor-25; Predcor-50; Predcor-TBA; Predicort-RP; Predisone Intensol; Prednicot; Prelone; Robalog; Scheinpharm Triamcine-A; Selestoject; Solu-Cortef; Solu-Medrol; Solurex; Solurex LA; Sterapred; Sterapred DS; Tac-3; Tramacort-D; Tri-Kort;*

Triam-A; Triam-Forte; Triamalone 40; Triamonide 40; Trilog; Trilone; Tristoject; Winpred.

Category: Corticosteroid [Betamethasone; Budesonide; Cortisone; Dexamethasone; Hydrocortisone; Methylprednisolone; Prednisolone; Prednisone; Triamcinolone]; Anti-inflammatory (steroidal) [Betamethasone; Budesonide; Cortisone; Dexamethasone; Hydrocortisone; Methylprednisolone; Prednisolone; Prednisone; Triamcinolone]; Diagnostic aid (Cushing's syndrome) [Dexamethasone]; Immunosuppressant [Betamethasone; Cortisone; Dexamethasone; Hydrocortisone; Methylprednisolone; Prednisolone; Prednisone; Triamcinolone]; Antiemetic, in cancer chemotherapy [Dexamethasone; Hydrocortisone; Prednisone]; Diagnostic aid (endogenous depression) [Dexamethasone].

Conventional indications: Allergic disorders - Indicated for the treatment of severe or incapacitating allergic disorders intractable to adequate trials of conventional treatment:

Allergic reactions, drug-induced (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Anaphylactic or anaphylactoid reactions (treatment adjunct) [Dexamethasone (sodium phosphate injection); hydrocortisone (sodium succinate for injection); and methylprednisolone (sodium succinate for injection)]; Angioedema (treatment adjunct) [Betamethasone (tablets)]; Edema, laryngeal, acute noninfectious (treatment adjunct) [Betamethasone (sodium phosphate and acetate injectable suspension); cortisone (acetate injectable suspension, tablets); dexamethasone (sodium phosphate injection); hydrocortisone (sodium phosphate injection, sodium succinate for injection); and methylprednisolone (acetate injectable suspension, sodium succinate for injection)]; Rhinitis, allergic, perennial or seasonal, severe (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (acetate injectable suspension, tablets)]; Serum sickness (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Transfusion reactions, urticarial (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, sodium phosphate injection); hydrocortisone (sodium phosphate injection, sodium succinate for injection); and

methylprednisolone (acetate injectable suspension, sodium succinate for injection)]. Collagen disorders - Indicated during an acute exacerbation or as maintenance therapy: Arteritis, giant cell (treatment) [Methylprednisolone (tablets); and prednisone (tablets)]; Carditis, rheumatic or nonrheumatic, acute (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (oral solution, tablets); and triamcinolone (tablets)]; Dermatomyositis, systemic (polymyositis) (treatment) [Cortisone (acetate injectable suspension, tablets); dexamethasone (tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); and prednisone (tablets)]; Lupus erythematosus, systemic (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Connective tissue disease, mixed (treatment), Polyarteritis nodosa (treatment), Polychondritis, relapsing (treatment) and Vasculitis (treatment) [Betamethasone; cortisone; dexamethasone; hydrocortisone; methylprednisolone; prednisolone; prednisone; and triamcinolone]; Depression, mental, endogenous (diagnosis) [Dexamethasone]. Dermatologic disorders: Alopecia areata (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension); dexamethasone (acetate injectable suspension, sodium phosphate injection); hydrocortisone (acetate injectable suspension); methylprednisolone (acetate injectable suspension); and triamcinolone (acetamide injectable suspension)]; Dermatitis, atopic (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Dermatitis, contact (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Dermatitis, exfoliative (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate

injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Dermatitis herpetiformis, bullous (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Dermatitis, seborrheic, severe (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Dermatoses, inflammatory, severe (treatment) [Betamethasone (tablets) and triamcinolone (acetone injectable suspension, tablets)]; Erythema multiforme, severe (Stevens-Johnson syndrome) (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Granuloma annulare (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension); dexamethasone (acetate injectable suspension, sodium phosphate injection); hydrocortisone (acetate injectable suspension) methylprednisolone (acetate injectable suspension); and triamcinolone (acetone injectable suspension)]; Keloids (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension); dexamethasone (acetate injectable suspension, sodium phosphate injection); hydrocortisone (acetate injectable suspension); methylprednisolone (acetate injectable suspension); and triamcinolone (acetone injectable suspension)]; Lichen planus (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension); dexamethasone (acetate injectable suspension, sodium phosphate injection); hydrocortisone (acetate injectable suspension); methylprednisolone (acetate injectable suspension); and triamcinolone (acetone injectable suspension)]; Lichen simplex chronicus (neurodermatitis) (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension); dexamethasone (acetate injectable suspension, sodium phosphate injection); hydrocortisone (acetate injectable suspension); methylprednisolone (acetate injectable suspension); and triamcinolone (acetone injectable suspension)]; Lupus erythematosus, discoid (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension); dexamethasone (acetate injectable suspension, sodium phosphate injection); hydrocortisone (acetate injectable suspension); methylprednisolone (acetate

injectable suspension); and triamcinolone (acetanide injectable suspension)]; Mycosis fungoides (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Necrobiosis lipoidica diabetorum (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension); dexamethasone (acetate injectable suspension, sodium phosphate injection); hydrocortisone (acetate injectable suspension); methylprednisolone (acetate injectable suspension); and triamcinolone (acetanide injectable suspension)]; Pemphigus (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Psoriasis, severe (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Psoriatic plaques (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension); dexamethasone (acetate injectable suspension, sodium phosphate injection); hydrocortisone (acetate injectable suspension); methylprednisolone (acetate injectable suspension); and triamcinolone (acetanide injectable suspension)]; Eczema, severe (treatment) [Betamethasone (tablets); cortisone; dexamethasone; hydrocortisone; methylprednisolone; prednisolone; prednisone; and triamcinolone]; Pemphigoid (treatment) [Betamethasone; cortisone; dexamethasone; hydrocortisone; methylprednisolone; prednisolone; prednisone; and triamcinolone]; Sarcoid, localized cutaneous (treatment) [Betamethasone; dexamethasone; hydrocortisone; methylprednisolone; prednisolone; and triamcinolone].

Endocrine disorders: Adrenocortical insufficiency, acute (treatment) and Adrenocortical insufficiency, chronic primary (Addison's disease) (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Adrenocortical insufficiency, secondary (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension,

sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Congenital adrenal hyperplasia (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); and prednisone (oral solution, tablets)]; Cushing's syndrome (diagnosis) [Dexamethasone (elixir, oral solution, sodium phosphate injection, tablets)]; Hypercalcemia associated with neoplasms or sarcoidosis (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Thyroiditis, nonsuppurative (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, tablets); methylprednisolone (sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]. *gastrointestinal disorders* Colitis, ulcerative (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Crohn's disease (regional enteritis) (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Sprue, refractory (treatment) [Betamethasone (tablets)]. *Hematologic disorders*: Anemia, hemolytic, acquired (autoimmune) (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and

triamcinolone (tablets)]; Anemia, hypoplastic, congenital (erythroid) (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Anemia, red blood cell (erythroblastopenia) (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Thrombocytopenia, secondary, in adults (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Thrombocytopenic purpura, idiopathic, in adults (treatment) [Betamethasone (syrup, tablets); cortisone (tablets); dexamethasone (elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Hemolysis (treatment) [Betamethasone; cortisone; dexamethasone; hydrocortisone; methylprednisolone; prednisolone; prednisone; and triamcinolone]. Hepatic disease - Use is controversial: Hepatitis, alcoholic, with encephalopathy (treatment), Hepatitis, chronic, active (treatment), Hepatitis, nonalcoholic, in women (treatment) and Necrosis, hepatic, subacute (treatment) [Methylprednisolone; prednisolone; and prednisone]. Inflammatory disorders, nonrheumatic - Indicated during an acute episode or exacerbation. Local injections are preferred when only a few joints or areas are involved: Bursitis, acute or subacute (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (acetate injectable suspension, cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (acetate injectable suspension, hexacetate injectable suspension, tablets)]; Epicondylitis (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (acetate injectable suspension, cypionate oral suspension,

sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (acetanide injectable suspension, hexacetanide injectable suspension, tablets)]; Tenosynovitis, acute nonspecific (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (acetate injectable suspension, cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (acetanide injectable suspension, hexacetanide injectable suspension, tablets)]; Fibrositis (treatment)] and Myositis (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension) and dexamethasone (sodium phosphate injection)]; Nausea and vomiting, cancer chemotherapy-induced (prophylaxis) [Dexamethasone (sodium phosphate injection, tablets); hydrocortisone; and prednisone].

Neoplastic disease - Indicated in conjunction with appropriate specific antineoplastic disease therapy for palliative management: Leukemia, acute or chronic lymphocytic (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (oral solution, tablets); and triamcinolone (tablets)]; Lymphomas, Hodgkin's or non-Hodgkin's (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Waldenström's macroglobulinemia (treatment) [Prednisone]; Carcinoma, breast (treatment), Carcinoma, prostatic (treatment), Fever, due to malignancy (treatment adjunct), Multiple myeloma (treatment) and Tumors, brain, primary (treatment adjunct) [Betamethasone; cortisone; dexamethasone; hydrocortisone; methylprednisolone; prednisolone; prednisone; and triamcinolone]; Nephrotic syndrome (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (oral solution, tablets); and triamcinolone (tablets)].

Neurologic disease: Meningitis, tuberculous (treatment adjunct) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable

suspension, tablets); dexamethasone (elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Multiple sclerosis (treatment) [Dexamethasone (tablets); hydrocortisone (tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (oral solution, tablets); and triamcinolone (tablets)]; Myasthenia gravis (treatment) [Betamethasone; cortisone; dexamethasone; hydrocortisone; methylprednisolone; prednisolone; prednisone; and triamcinolone]; *Neurotrauma*: Edema, cerebral, especially when associated with primary or metastatic brain tumor, craniotomy, or head injury (prophylaxis and treatment) [Dexamethasone (elixir, oral solution, sodium phosphate injection, tablets); methylprednisolone (sodium succinate for injection); and prednisone]; Ischemia, cerebral (treatment) [Dexamethasone]; Pseudotumor cerebri (treatment) [Dexamethasone]; Spinal cord injury, acute (treatment) [Methylprednisolone (sodium succinate for injection)]. *Ophthalmic disorders - Indicated in the treatment of severe acute or chronic allergic and inflammatory ophthalmic conditions*: Chorioretinitis (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Choroiditis, posterior, diffuse (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Conjunctivitis, allergic (not controlled topically) (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Herpes zoster ophthalmicus (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Inflammation, anterior segment (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup,

tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Iridocyclitis (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Iritis (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Keratitis (not associated with herpes simplex or fungal infection) (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Neuritis, optic (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Ophthalmia, sympathetic (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Ulcers, allergic, corneal marginal (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone

(tablets); and triamcinolone (tablets)]; Uveitis, posterior, diffuse (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Neuritis, retrobulbar (treatment) [Betamethasone (tablets); and dexamethasone (sodium phosphate injection)]. Oral disorders - Indicated for treatment of oral lesions unresponsive to topical therapy. The presence of an oral herpetic lesion must be ruled out prior to initiation of glucocorticoid therapy: Gingivitis, desquamative (treatment) [Betamethasone; cortisone; dexamethasone; hydrocortisone; methylprednisolone; prednisolone; prednisone; and triamcinolone]; Inflammatory reactions, postoperative, dental (treatment) [Betamethasone (tablets)]; Lesions, oral, associated with corticosteroid-responsive disorders, such as discoid lupus erythematosus; erythema multiforme, severe (Stevens-Johnson syndrome); lichen planus; pemphigoid; pemphigus; and systemic lupus erythematosus (treatment) and Stomatitis, aphthous, recurrent (treatment) [Betamethasone; cortisone; dexamethasone; hydrocortisone; methylprednisolone; prednisolone; prednisone; and triamcinolone]; Pericarditis (treatment) [Betamethasone; cortisone; dexamethasone; hydrocortisone; methylprednisolone; prednisolone; prednisone; and triamcinolone]; Polyps, nasal (treatment) [Betamethasone; dexamethasone; methylprednisolone; prednisolone; and triamcinolone]. Respiratory disorders - Indicated in the treatment and prophylaxis of respiratory disorders. Prophylactic uses include administration prior to or during extracorporeal circulation in heart surgery if the patient has a pre-existing pulmonary disorder, and administration prior to, during, and following oral, facial, or neck surgery to prevent edema that may threaten the airway: Asthma, bronchial (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Berylliosis (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Croup (treatment) [Dexamethasone]; Löeffler's syndrome (eosinophilic pneumonitis or hypereosinophilic syndrome) (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone

(acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Pneumonitis, aspiration (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Sarcoidosis, symptomatic (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Tuberculosis, pulmonary, disseminated or fulminating (treatment adjunct) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (oral solution, tablets); and triamcinolone (tablets)]; Bronchitis, asthmatic, acute or chronic (treatment) and Pulmonary disease, chronic obstructive (not controlled with theophylline and beta-adrenergic agonists) (treatment) [Betamethasone; cortisone; dexamethasone; hydrocortisone; methylprednisolone; prednisolone; prednisone; and triamcinolone]; Edema, pulmonary, noncardiogenic (protamine sensitivity-induced) (treatment) and Hemangioma, airway-obstructing, in infants (treatment) [Betamethasone; cortisone; dexamethasone; hydrocortisone; methylprednisolone; prednisolone; prednisone; and triamcinolone]; Emphysema, pulmonary (treatment) [Betamethasone (tablets) and triamcinolone (tablets)]; Fibrosis, idiopathic pulmonary (Hamman-Rich syndrome) (treatment) [Betamethasone (tablets) and triamcinolone (tablets)]; Pneumonia, *Pneumocystis carinii*, associated with acquired immunodeficiency syndrome (AIDS) (treatment adjunct)]; Respiratory distress syndrome, adult (treatment) [Dexamethasone]; Respiratory distress syndrome, neonatal (prophylaxis) [Betamethasone; dexamethasone (sodium phosphate injection); and hydrocortisone]; Status asthmaticus (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, tablets); cortisone; dexamethasone (sodium phosphate injection); hydrocortisone (sodium succinate for injection); methylprednisolone (sodium succinate for injection); prednisolone; and triamcinolone]. *Rheumatic disorders - Indicated as adjunctive therapy during an acute episode or exacerbation. Local injections are preferred when only a few joints or areas are involved:* Ankylosing spondylitis (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection,

tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Arthritis, gouty, acute (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (acetate injectable suspension, cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (sodium succinate for injection, tablets); prednisolone (acetate injectable suspension, sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (acetone injectable suspension, hexacetonide injectable suspension, tablets)]; Arthritis, psoriatic (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Arthritis, rheumatoid (including juvenile arthritis) (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (acetate injectable suspension, cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (acetone injectable suspension, hexacetonide injectable suspension, tablets)]; Osteoarthritis, post-traumatic (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (acetate injectable suspension, cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (acetone injectable suspension, hexacetonide injectable suspension)]; Polymyalgia rheumatica (treatment) [Methylprednisolone (tablets); and prednisone (tablets)]; Synovitis of osteoarthritis (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (acetate injectable suspension, cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (acetone injectable suspension, hexacetonide injectable suspension)]; Calcium pyrophosphate deposition disease, acute (chondrocalcinosis articularis; pseudogout; synovitis, crystal-induced) (treatment) and Reiter's disease (treatment) [Betamethasone; cortisone; dexamethasone; hydrocortisone; methylprednisolone; prednisolone; prednisone; and triamcinolone]; Rheumatic fever

(treatment) [Betamethasone; cortisone; dexamethasone; hydrocortisone; methylprednisolone (sodium succinate for injection); prednisolone; prednisone; and triamcinolone (tablets)]; Shock (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension); cortisone (acetate injectable suspension, tablets); dexamethasone (sodium phosphate injection); hydrocortisone (sodium phosphate injection, sodium succinate for injection); and methylprednisolone (sodium succinate for injection)]; Transplant rejection, organ (prophylaxis and treatment) [Betamethasone; cortisone; dexamethasone; hydrocortisone; methylprednisolone (sodium succinate for injection, tablets); prednisolone; prednisone; and triamcinolone]; Trichinosis (treatment) [Betamethasone (sodium phosphate and acetate injectable suspension, syrup, tablets); cortisone (acetate injectable suspension, tablets); dexamethasone (acetate injectable suspension, elixir, oral solution, sodium phosphate injection, tablets); hydrocortisone (cypionate oral suspension, sodium phosphate injection, sodium succinate for injection, tablets); methylprednisolone (acetate injectable suspension, sodium succinate for injection, tablets); prednisolone (sodium phosphate oral solution, syrup); prednisone (tablets); and triamcinolone (tablets)]; Tumors, cystic, of an aponeurosis or tendon (ganglia) (treatment) [Dexamethasone (acetate injectable suspension, sodium phosphate injection); hydrocortisone (acetate injectable suspension); and methylprednisolone (acetate injectable suspension)].

Primary Actions or Pathogenetic Symptoms

MIND: **nervousness; restlessness; delirium** (confusion; excitement; restlessness); *depression, mental; disorientation; euphoria* (false sense of well-being); *hallucinations* (seeing, hearing, or feeling things that are not there); *manic-depressive episodes* (sudden, wide mood swings); *paranoia* (mistaken feelings of self-importance or being mistreated).

VERTIGO: *dizziness; lightheadedness; vertigo* (dizziness; sensation of spinning).

HEAD: *headache; hirsutism* (unusual increase in hair growth).

EYE: *cataracts, posterior subcapsular* (gradual blurring or loss of vision); *glaucoma with possible damage to optic nerves* (blurred vision or other change in vision; eye pain); *infection, ocular, secondary, fungal or viral* (blurred vision or other change in vision; eye pain; redness of eyes; sensitivity of eyes to light; tearing).

VISION: *blindness, sudden.*

NOSE: *nosebleeds* (following intranasal injection).

FACE: *acne; filling or rounding out of the face; flushing of face or cheeks* (with intravenous administration); *striae* (reddish purple lines on face).

STOMACH: **appetite, increased; appetite, loss of** [Triamcinolone] (rebound effect?); **indigestion; irritation, gastrointestinal** (nausea; vomiting); *hiccups; ulceration, peptic* (bloody or black, tarry stools; continuing abdominal or stomach pain or burning).

ABDOMEN: **indigestion; irritation, gastrointestinal** (nausea; vomiting); *adrenal suppression; necrosis, avascular* (hip or shoulder pain); *pancreatitis* (continuing abdominal or stomach pain or burning; nausea; vomiting); *striae* (reddish purple lines on trunk, or groin); *ulceration, peptic or intestinal perforation* (bloody or black, tarry stools; continuing abdominal or stomach pain or burning).

KIDNEYS: *retention, fluid and sodium* (rapid weight gain; swelling of feet or lower legs).

GENITALIA FEMALE: *menstrual irregularities.*

CHEST: *arrythmias, cardiac* (with intravenous administration); *congestive heart failure* (in susceptible individuals); *striae* (reddish purple lines on trunk).

BACK: *striae* (reddish purple lines on trunk).

EXTREMITIES: *pain, joint, increased* (following intra-articular injection); *fractures, bone* (pain in back, ribs, arms, or legs) (includes vertebral compression and long bone pathologic fractures); *myopathy, steroid* (muscle weakness); *necrosis, avascular* (hip or shoulder pain); *osteoporosis* (pain in back, ribs, arms, or legs) (includes vertebral compression and long bone pathologic fractures); *retention, fluid and sodium* (rapid weight gain; swelling of feet or lower legs); *rupture, tendon*; *striae* (reddish purple lines on arms, legs); *weakness, muscle*.

SLEEP: *trouble in sleeping*.

PERSPIRATION: *sweating, increased*

SKIN: *hypopigmentation or changes in skin color* (darkening or lightening of skin color); *acne*; *allergic reaction, generalized* (skin rash or hives); *atrophy, cutaneous or subcutaneous tissue* (thin, shiny skin; pitting or depression of skin at injection site) (with frequent repository injections); *hirsutism* (unusual increase in hair growth); *striae* (reddish purple lines on arms, face, legs, trunk, or groin); *thin, fragile skin*.

GENERALITIES: *immunosuppression* [Betamethasone; Cortisone; Dexamethasone; Hydrocortisone; Methylprednisolone; Prednisolone; Prednisone; Triamcinolone]; **weight gain**; *diabetes mellitus* (decreased or blurred vision; frequent urination; increased thirst); *pain, joint, increased* (following intra-articular injection); *adrenal insufficiency, acute, possibly life-threatening* (too-rapid withdrawal of therapy, especially after prolonged use); *adrenal suppression*; *allergic reaction, local, or infection at injection site* (redness, swelling, pain, or other signs of infection or allergic reaction); *anaphylaxis, generalized* (hives; shortness of breath; swelling of face, nasal membranes, and eyelids; tightness in chest; troubled breathing; wheezing) (with intravenous administration); *angioedema*; *burning, numbness, pain, or tingling at or near injection site*; *Cushing's syndrome*; *death, sudden*; *ecchymosis* (unusual bruising); *fractures, bone* (pain in back, ribs, arms, or legs) (includes vertebral compression and long bone pathologic fractures); *growth suppression* (in children); *healing, wound, impaired*; *hirsutism* (unusual increase in hair growth); *hypertension*; *hypokalemic syndrome* (irregular heartbeat; muscle cramps or pain; unusual tiredness or weakness); *infection, lower resistance to*; *myopathy, steroid* (muscle weakness); *necrosis, avascular* (hip or shoulder pain); *osteoporosis* (pain in back, ribs, arms, or legs) (includes vertebral compression and long bone pathologic fractures); *pancreatitis* (continuing abdominal or stomach pain or burning; nausea; vomiting); *retention, fluid and sodium* (rapid weight gain; swelling of feet or lower legs); *rupture, tendon*; *scarring at injection site*; *seizures* (with intravenous administration); *weakness, muscle*.

DIAGNOSTIC TESTS: *fractures, bone*; *hypokalemic syndrome*; *osteoporosis*.

Secondary Actions or Rebound Effects: **appetite, loss of** [Triamcinolone]; *pressure, intracranial, increased* (headache; insomnia; papilledema; unusual tiredness or weakness); *withdrawal syndrome* (reappearance of disease symptoms).

Corticotropin (Systemic)

Commercial name(s): *H.P. Acthar Gel*.

Category: Diagnostic aid (adrenocortical function) [Corticotropin for Injection USP]; Anticonvulsant (specific in infantile myoclonic seizures) [Repository Corticotropin Injection USP].

Conventional indications: Adrenocortical insufficiency (diagnosis) [Corticotropin for injection]; Seizures, myoclonic, infantile (treatment) [Repository corticotropin].

Primary Actions or Pathogenetic Symptoms

MIND: irritability, extreme; ventriculomegaly, cerebral.

HEAD: dermatitis, seborrheic; hirsutism.

CHEST: congestive heart failure.

SKIN: dermatitis, seborrheic; hirsutism; pigmentation, cutaneous.

GENERALITIES: hirsutism; hyperglycemia; hypertension; hypocalcemia; hypokalemia; sepsis; suppression, hypothalamic-pituitary; allergic reaction (dizziness; nausea and vomiting; shock; skin rash); seizures, worsening of (with chronic use).

DIAGNOSTIC TESTS: hyperglycemia; hypernatremia; hypocalcemia; hypokalemia; hypophosphatemia.

Cosyntropin (Systemic)

Commercial name(s): *Cortrosyn*.

Category: Diagnostic aid (adrenal-pituitary function).

Conventional indications: Adrenocortical insufficiency (diagnosis).

Primary Actions or Pathogenetic Symptoms

GENERALITIES: allergic reaction, mild (mild fever; nausea; vomiting); redness or pain at injection site; anaphylaxis, generalized (dizziness; hives; irritability; itching of skin; lightheadedness; seizures; skin rash; slow heartbeat; trouble in breathing; wheezing).

Cough/ Cold Combinations (Systemic)

Other commonly used names: Brompheniramine, Phenylephrine and Codeine; Brompheniramine, Phenylephrine, Codeine and Guaifenesin; Brompheniramine, Phenylephrine, Hydrocodone and Guaifenesin; Brompheniramine, Pseudoephedrine, and Dextromethorphan; Carbinoxamine, Pseudoephedrine, and Dextromethorphan; Chlorpheniramine and Codeine; Chlorpheniramine and Dextromethorphan; Chlorpheniramine and Hydrocodone; Chlorpheniramine, Ephedrine, and Guaifenesin; Chlorpheniramine, Ephedrine, Phenylephrine, and Carbetapentane; Chlorpheniramine, Ephedrine, Phenylephrine, Dextromethorphan, Ammonium Chloride, and Ipecac; Chlorpheniramine, Pheniramine, Pyrilamine, Phenylephrine, Hydrocodone, Salicylamide, Caffeine, and Ascorbic Acid; Chlorpheniramine, Phenylephrine, Codeine, and Ammonium Chloride; Chlorpheniramine, Phenylephrine, Codeine, and Potassium Iodide;

Chlorpheniramine, Phenylephrine, and Dextromethorphan; Chlorpheniramine, Phenylephrine, Dextromethorphan, and Guaifenesin; Chlorpheniramine, Phenylephrine, Dextromethorphan, Guaifenesin, and Ammonium Chloride; Chlorpheniramine, Phenylephrine, and Hydrocodone; Chlorpheniramine, Phenylephrine, Hydrocodone, Acetaminophen, and Caffeine; Chlorpheniramine, Pseudoephedrine, and Codeine; Chlorpheniramine, Pseudoephedrine, Codeine and Acetaminophen; Chlorpheniramine, Pseudoephedrine, and Dextromethorphan; Chlorpheniramine, Pseudoephedrine, Dextromethorphan, and Acetaminophen; Chlorpheniramine, Pseudoephedrine, Dextromethorphan, and Guaifenesin; Chlorpheniramine, Pseudoephedrine, and Hydrocodone; Chlorpheniramine, Pyrillamine, Phenylephrine, Pseudoephedrine and Hydrocodone; Codeine, Ammonium Chloride, and Guaifenesin; Codeine and Guaifenesin; Dextromethorphan and Acetaminophen; Dextromethorphan and Guaifenesin; Dextromethorphan and Iodinated Glycerol; Diphenhydramine, Codeine, and Ammonium Chloride; Diphenhydramine, Dextromethorphan, and Ammonium Chloride; Doxylamine, Codeine, and Acetaminophen; Doxylamine, Etafedrine, and Hydrocodone; Doxylamine, Pseudoephedrine, Dextromethorphan, and Acetaminophen; Ephedrine and Guaifenesin; Hydrocodone and Guaifenesin; Hydrocodone and Homatropine; Hydrocodone and Potassium Guaiacolsulfonate; Hydrocodone; Pheniramine, Codeine, and Guaifenesin; Pheniramine, Phenylephrine, Codeine, Sodium Citrate, Sodium Salicylate, and Caffeine; Pheniramine, Phenylephrine, and Dextromethorphan; Pheniramine, Pyrillamine, Hydrocodone, Potassium Citrate, and Ascorbic Acid; Pheniramine, Pyrillamine and Phenyltoloxamine; Phenylephrine, Codeine and Guaifenesin; Phenylephrine and Guaifenesin; Phenylephrine and Hydrocodone; Phenylephrine, Hydrocodone, and Guaifenesin; Phenyltoloxamine and Hydrocodone; Promethazine and Codeine; Promethazine, Codeine, and Potassium Guaiacolsulfonate; Promethazine and Dextromethorphan; Promethazine and Potassium Guaiacolsulfonate; Promethazine and Phenylephrine; Promethazine, Phenylephrine, and Codeine; Promethazine, Phenylephrine, and Potassium Guaiacolsulfonate; Pseudoephedrine, Codeine, and Guaifenesin; Pseudoephedrine and Dextromethorphan; Pseudoephedrine, Dextromethorphan, and Acetaminophen; Pseudoephedrine, Dextromethorphan, and Guaifenesin; Pseudoephedrine, Dextromethorphan, Guaifenesin, and Acetaminophen; Pseudoephedrine and Guaifenesin; Pseudoephedrine, Hydrocodone, and Guaifenesin; Pseudoephedrine, Hydrocodone, and Potassium Guaiacolsulfonate; Pyrillamine and Codeine; Pyrillamine, Phenylephrine, Hydrocodone, and Ammonium Chloride; Pyrillamine, Pseudoephedrine, Dextromethorphan, and Acetaminophen; Triprolidine, Pseudoephedrine, and Codeine; Triprolidine, Pseudoephedrine, Codeine, and Guaifenesin.

Category: Antihistaminic (H₁-receptor)-decongestant [Pheniramine, Pyrillamine, and Phenyltoloxamine; Promethazine and Phenylephrine]; **Antihistaminic (H₁-receptor)-decongestant-antitussive** [Brompheniramine, Phenylephrine and Codeine; Brompheniramine, Pseudoephedrine, and Dextromethorphan; Carbinoxamine, Pseudoephedrine, and Dextromethorphan; Chlorpheniramine, Pyrillamine, Phenylephrine, Pseudoephedrine and Hydrocodone; Chlorpheniramine, Ephedrine, Phenylephrine, and Carbetapentane; Chlorpheniramine, Phenylephrine, and Dextromethorphan; Chlorpheniramine, Phenylephrine, and Hydrocodone; Chlorpheniramine, Pseudoephedrine, and Codeine; Chlorpheniramine, Pseudoephedrine, and Dextromethorphan;

Chlorpheniramine, Pseudoephedrine, and Hydrocodone; Doxylamine, Etafedrine, and Hydrocodone; Pheniramine, Phenylephrine, and Dextromethorphan; Promethazine, Phenylephrine, and Codeine; Triprolidine, Pseudoephedrine, and Codeine]; **Antihistaminic (H₁-receptor)-decongestant-expectorant** [Chlorpheniramine, Ephedrine, and Guaifenesin; Promethazine, Phenylephrine, and Potassium Guaiacolsulfonate]; **Antihistaminic (H₁-receptor)-decongestant-antitussive-expectorant** [Brompheniramine, Phenylephrine, Codeine, and Guaifenesin ; Brompheniramine, Phenylephrine, Hydrocodone, and Guaifenesin; Chlorpheniramine, Ephedrine, Phenylephrine, Dextromethorphan, Ammonium Chloride, and Ipecac; Chlorpheniramine, Phenylephrine, Codeine, and Ammonium Chloride ; Chlorpheniramine, Phenylephrine, Codeine, and Potassium Iodide; Chlorpheniramine, Phenylephrine, Dextromethorphan, and Guaifenesin; Chlorpheniramine, Phenylephrine, Dextromethorphan, Guaifenesin, and Ammonium Chloride; Chlorpheniramine, Pseudoephedrine, Dextromethorphan, and Guaifenesin; Pyrillamine, Phenylephrine, Hydrocodone, and Ammonium Chloride; Triprolidine, Pseudoephedrine, Codeine, and Guaifenesin]; **Antihistaminic (H₁-receptor)-decongestant-antitussive-expectorant-analgesic** [Pheniramine, Phenylephrine, Codeine, Sodium Citrate, Sodium Salicylate, and Caffeine]; **Antihistaminic (H₁-receptor)-decongestant-antitussive-analgesic** [Chlorpheniramine, Pheniramine, Pyrillamine, Phenylephrine, Hydrocodone, Salicylamide, Caffeine, and Ascorbic Acid; Chlorpheniramine, Phenylephrine, Hydrocodone, Acetaminophen, and Caffeine; Chlorpheniramine, Pseudoephedrine, Codeine, and Acetaminophen; Chlorpheniramine, Pseudoephedrine, Dextromethorphan, and Acetaminophen; Doxylamine, Pseudoephedrine, Dextromethorphan, and Acetaminophen; Pyrillamine, Pseudoephedrine, Dextromethorphan, and Acetaminophen]; **Antihistaminic (H₁-receptor)-antitussive-Chlorpheniramine and Codeine**; Chlorpheniramine and Dextromethorphan ; Chlorpheniramine and Hydrocodone; Phenyltoloxamine and Hydrocodone; Promethazine and Codeine; Promethazine and Dextromethorphan; Pyrillamine and Codeine; **Antihistaminic (H₁-receptor)-antitussive-expectorant** [Diphenhydramine, Codeine, and Ammonium Chloride; Diphenhydramine, Dextromethorphan, and Ammonium Chloride; Pheniramine, Codeine, and Guaifenesin; Pheniramine, Pyrillamine, Hydrocodone, Potassium Citrate, and Ascorbic Acid; Promethazine, Codeine, and Potassium Guaiacolsulfonate]; **Antihistaminic (H₁-receptor)-antitussive-analgesic** [Doxylamine, Codeine, and Acetaminophen]; **Antitussive-expectorant** [Codeine, Ammonium Chloride, and Guaifenesin; Codeine and Guaifenesin; Dextromethorphan and Guaifenesin; Dextromethorphan and Iodinated Glycerol; Hydrocodone and Guaifenesin]; **Antitussive-analgesic** [Dextromethorphan and Acetaminophen]; **Antitussive-anticholinergic** [Hydrocodone and Homatropine]; **Decongestant-antitussive** [Phenylephrine and Hydrocodone; Pseudoephedrine and Dextromethorphan]; **Decongestant-antitussive-expectorant** [Phenylephrine, Codeine and Guaifenesin ; Phenylephrine, Hydrocodone, and Guaifenesin ; Pseudoephedrine, Codeine, and Guaifenesin ; Pseudoephedrine, Dextromethorphan, and Guaifenesin; Pseudoephedrine, Hydrocodone, and Guaifenesin; Pseudoephedrine, Hydrocodone, and Potassium Guaiacolsulfonate]; **Decongestant-antitussive-expectorant-analgesic** [Pseudoephedrine, Dextromethorphan, Guaifenesin, and Acetaminophen]; **Decongestant-antitussive-analgesic** [Pseudoephedrine, Dextromethorphan, and Acetaminophen]; **Decongestant-**

expectorant [Ephedrine and Guaifenesin; Phenylephrine and Guaifenesin; Pseudoephedrine and Guaifenesin].

Conventional indications: Cough (treatment) [Combination products containing antitussives and/or expectorants]; Cough and nasal congestion (treatment) [Combination products containing antitussives and/or expectorants, and nasal decongestants]; Cold symptoms (treatment) [Combination products containing antihistamines, antitussives or expectorants, nasal decongestants, and analgesics].

Primary Actions or Pathogenetic Symptoms

Antihistamine-containing – See: Antihistamines (Systemic).

Antihistamine- and decongestant-containing – See: Antihistamines and Decongestants (Systemic).

Decongestant-containing - See: Ephedrine in Bronchodilators, Adrenergic (Systemic); Pseudoephedrine (Systemic).

Dextromethorphan-containing - See Dextromethorphan (Systemic).

Opioid (narcotic) antitussive-containing - See Opioid (Narcotic) Analgesics (Systemic).

Expectorant-containing - See: Guaifenesin (Systemic).

Analgesic-containing - See: Acetaminophen (Systemic), Acetaminophen and Salicylates (Systemic), Salicylates (Systemic).

Homatropine-containing – See: Anticholinergics/Antispasmodics (Systemic).

Cromolyn (Inhalation-Local)

Commercial name(s): *Intal; Intal Inhaler; Intal Syncroner; Novo-cromolyn; PMS-Sodium Cromoglycate.*

Category: Anti-inflammatory, nonsteroidal (inhalation); Mast cell stabilizer; Asthma prophylactic; Antiallergic (inhalation).

Conventional indications: Asthma (prophylaxis); Bronchospasm (prophylaxis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness; vertigo.*

HEAD: *headache.*

EYE: *lacrimation.*

NOSE: *congestion.*

FACE: *swollen parotid glands.*

MOUTH: *taste, bad* [Metered dose inhaler].

THROAT: *dryness; irritation; hoarseness.*

STOMACH: *nausea.*

BLADDER: *dysuria; frequency, urinary.*

KIDNEYS: *nephrosis* [Cromolyn (inhalation)].

LARYNX AND TRACHEA: *edema, laryngeal.*

RESPIRATION: *wheezing; pneumonia, eosinophilic* (pulmonary infiltrates with eosinophilia).

COUGH: *coughing; hemoptysis.*

CHEST: *hemoptysis; pneumonia, eosinophilic* (pulmonary infiltrates with eosinophilia); *pericarditis* [Cromolyn (inhalation)].

EXTREMITIES: *myalgia; neuritis, peripheral* [Cromolyn (inhalation)]; *pain, joint; polymyositis* [Cromolyn (inhalation)]; *swelling, joint* [Cromolyn (inhalation)].

SKIN: *dermatitis, exfoliative* [Cromolyn (inhalation)]; *photodermatitis* [Cromolyn (inhalation)]; *rash; urticaria*.

GENERALITIES: *anaphylactic reaction* (difficulty in swallowing; hives; itching of skin; swelling of face, lips, or eyelids; increased wheezing or difficulty in breathing; low blood pressure); *anemia; angioedema* [Cromolyn (inhalation)]; *eosinophilia; myalgia; neuritis, peripheral* [Cromolyn (inhalation)]; *pain, joint; polymyositis* [Cromolyn (inhalation)]; *serum sickness* [Cromolyn (inhalation)]; *swelling, joint* [Cromolyn (inhalation)]; *vasculitis, periarteritic* [Cromolyn (inhalation)].

DIAGNOSTIC TESTS: *anemia; eosinophilia*.

Secondary Actions or Rebound Effects: **bronchospasm, sometimes severe** (increased wheezing; tightness in chest; or difficulty in breathing) (associated with a precipitous fall in pulmonary function FEV₁).

Cromolyn (Nasal)

Commercial name(s): *Apo-Cromolyn; Children's Nasalcrom; Cromolyn Nasal Solution; Gen-Cromoglycate; Nasalcrom*.

Category: Mast cell stabilizer (nasal); Antiallergic (nasal).

Conventional indications: Rhinitis, allergic (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache*.

NOSE: *drip, postnasal; epistaxis* (nosebleeds).

MOUTH: *taste, unpleasant*.

RESPIRATION: *pneumonia, eosinophilic*.

COUGH: *cough*.

CHEST: *pneumonia, eosinophilic*.

SKIN: *erythema* (flushing); **urticaria** (hives); *skin rash*.

GENERALITIES: **flushing**; *anaphylactic reaction* (coughing; difficulty in swallowing; hives; itching of skin; swelling of face, lips, or eyelids; wheezing or difficulty in breathing).

Secondary Actions or Rebound Effects: **burning, irritation, or stinging inside of nose; sneezing, increase in.**

Cromolyn (Ophthalmic)

Commercial name(s): *Crolom; Opticrom; Vistacrom*.

Category: Mast cell stabilizer (ophthalmic); Antiallergic (ophthalmic).

Conventional indications: Conjunctivitis, seasonal allergic (treatment); Conjunctivitis, vernal (treatment); Keratitis, vernal (treatment); Keratoconjunctivitis, vernal (treatment).

Primary Actions or Pathogenetic Symptoms

FACE: *dryness or puffiness around the eye; dermatitis, contact* (rash or redness around the eyes).

Secondary Actions or Rebound Effects: **burning or stinging of eye, mild, temporary; itching, eye, increased; watering, increased; chemosis** (swelling of the membrane covering the white part of the eye); *injection, conjunctival* (redness of the white part of the eye); *irritation not present before therapy; styes.*

Cromolyn (Systemic/Oral-Local)

Commercial name(s): *Gastrocrom; Nalcrom.*

Category: Mast cell stabilizer; Antiallergic (systemic).

Conventional indications: Mastocytosis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *irritability.*

HEAD: **headache.**

STOMACH: *nausea.*

ABDOMEN: *pain, abdominal.*

RECTUM: **diarrhea.**

EXTREMITIES: *myalgia* (muscle pain).

SLEEP: *trouble in sleeping.*

SKIN: *skin rash.*

GENERALITIES: *myalgia* (muscle pain); *anaphylactic reaction, severe* (coughing; difficulty in swallowing; hives; itching of skin; swelling of face, lips, or eyelids; wheezing or difficulty in breathing) (rebound effect?).

Crotamiton (Topical)

Commercial name(s): *Eurax Cream; Eurax Lotion.*

Category: Scabicide.

Conventional indications: Scabies (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *allergic reaction* (skin rash); *irritation not present before therapy* (rebound effect?); *sensitization.*

Cyclandelate (Systemic)

Commercial name(s): *Cyclospasmol*.

Category: Vasodilator.

Conventional indications: **Unaccepted:** FDA has classified cyclandelate as being ineffective for its labeled indications, which include use as adjunctive therapy in intermittent claudication, arteriosclerosis obliterans, thrombophlebitis (to control associated vasospasm and muscular ischemia), nocturnal leg cramps, Raynaud's phenomenon, and selected cases of ischemic cerebrovascular disease.

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

FACE: flushing; tingling sensation in face.

STOMACH: belching; heartburn; nausea; pain.

CHEST: heartbeat, fast.

EXTREMITIES: tingling sensation in fingers, or toes.

PERSPIRATION: sweating.

GENERALITIES: vasodilation; heartbeat, fast; weakness.

Cyclizine (Systemic)

Commercial name(s): *Marezine*; *Marzine*.

Category: Antiemetic.

Conventional indications: Motion sickness (prophylaxis and treatment) [Oral cyclizine]; Nausea and vomiting, postoperative (prophylaxis and treatment) [Parenteral cyclizine].

Primary Actions or Pathogenetic Symptoms

MIND: nervousness; restlessness.

VERTIGO: dizziness.

VISION: blurred or double vision.

NOSE: dryness.

MOUTH: dryness.

THROAT: dryness.

STOMACH: appetite, loss of; upset stomach.

RECTUM: constipation; diarrhea.

BLADDER: urination, difficult or painful.

CHEST: heartbeat, fast.

SLEEP: drowsiness; trouble in sleeping.

SKIN: skin rash.

GENERALITIES: heartbeat, fast.

Cyclobenzaprine (Systemic)

Commercial name(s): *Flexeril*.

Category: Skeletal muscle relaxant.

Conventional indications: Spasm, skeletal muscle (treatment); Fibromyalgia syndrome.

Primary Actions or Pathogenetic Symptoms

MIND: confusion; excitement; nervousness; depression, mental; disorientation, severe; mania (with pre-existing psychiatric illness); thinking, abnormal; delirium; hallucinations; restlessness.

VERTIGO: dizziness; lightheadedness; syncope (fainting).

HEAD: headache.

EYE: angioedema (large, hive-like swellings on eyelids).

VISION: blurred vision.

HEARING: ringing or buzzing in ears.

FACE: angioedema (large, hive-like swellings on face, lips).

MOUTH: dryness; speaking, problems in; taste, unpleasant, or other taste changes; angioedema (large, hive-like swellings on mouth, and/or tongue).

STOMACH: irritation, gastrointestinal (stomach cramps or pain; bloated feeling or gas; diarrhea; indigestion; nausea; vomiting); vomiting.

ABDOMEN: irritation, gastrointestinal (stomach cramps or pain; bloated feeling or gas; diarrhea; indigestion; nausea; vomiting).

RECTUM: constipation.

BLADDER: urination, frequent; urinating, problems in.

CHEST: heartbeat, pounding; arrhythmias; block, bundle branch; cardiotoxicity (fast or irregular heartbeat; troubled breathing) (may include bundle branch block or other arrhythmias and congestive heart failure); congestive heart failure.

EXTREMITIES: relaxant, skeletal muscle; numbness, pain, tingling, or weakness in hands or feet; twitching, muscle; weakness, muscle, unusual; clumsiness; unsteadiness; stiffness, muscle, unexplained.

SLEEP: drowsiness; trouble in sleeping.

DREAMS: dreaming, abnormal.

FEVER: temperature, body, increase or decrease in.

SKIN: dermatitis, allergic (skin rash, hives, or itching); dry, hot, flushed skin.

GENERALITIES: relaxant, skeletal muscle; anticholinergic effects (dryness of mouth; blurred vision; problems in urinating); feeling of discomfort or illness, general; heartbeat, pounding; tiredness, unusual; trembling; twitching, muscle; weakness, muscle, unusual; anaphylaxis (changes in facial skin color; skin rash, hives, and/or itching; fast or irregular breathing; puffiness or swelling of the eyelids or the area around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing); CNS toxicity (abnormal thinking and dreaming; clumsiness or unsteadiness; severe confusion or disorientation; mental depression; ringing or buzzing in ears; delirium; convulsions; severe drowsiness; hallucinations; severe nervousness or restlessness); hepatitis/cholestasis (yellow eyes or skin); arrhythmias; convulsions; stiffness, muscle, unexplained; temperature, body, increase or decrease in.

Secondary Actions or Rebound Effects: diaphoresis, paradoxical.

Cyclopentolate (Ophthalmic)

Commercial name(s): *AK-Pentolate; Ak-Pentolate; Cyclogyl; Cylate; Diopentolate; Minims Cyclopentolate; Ocu-Pentolate; Pentolair.*

Category: Cycloplegic; Mydriatic.

Conventional indications: Refraction, cycloplegic; Mydriasis, in diagnostic procedures; Synechiae, posterior (prophylaxis); Uveitis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *behavioral disturbances; confusion; hallucinations; psychotic reactions* (unusual behavior, such as disorientation to time or place, failure to recognize people, hyperactivity, or restlessness, especially in children using 2% cyclopentolate); *coma*.

EYE: *cyclopegia* (paralysis of the ciliary muscle, resulting in a loss of visual accommodation); *mydriasis* (extensive pupils); *blepharoconjunctivitis; burning; conjunctivitis; hyperemia; keratitis, punctate; photophobia* (increased sensitivity of eyes to light); *pressure, intraocular, increased*.

VISION: *cyclopegia* (paralysis of the ciliary muscle, resulting in a loss of visual accommodation); *blurred vision*.

MOUTH: *dryness; speech, slurred*.

STOMACH: *mobility, gastrointestinal, diminished* (constipation; full feeling or passing gas; stomach cramps or pain); *swollen stomach* (in infants); *thirst*.

ABDOMEN: *mobility, gastrointestinal, diminished* (constipation; full feeling or passing gas; stomach cramps or pain).

BLADDER: *retention, urinary* (passing urine less often).

KIDNEYS: *retention, urinary* (passing urine less often).

CHEST: *heartbeat, fast or irregular*.

EXTREMITIES: *ataxia* (clumsiness or unsteadiness); *paralysis, medullary*.

SLEEP: *drowsiness, unusual*.

FEVER: *fever*.

SKIN: *skin rash*.

GENERALITIES: *ataxia* (clumsiness or unsteadiness); *heartbeat, fast or irregular; seizures; tiredness; vasodilation* (flushing or redness of face); *weakness; coma; death; paralysis, medullary*.

Secondary Actions or Rebound Effects: *synechiae* (eye irritation not present before therapy).

Cyclophosphamide (Systemic)

Commercial name(s): *Cytoxan; Neosar; Procytox*.

Category: Antineoplastic; Immunosuppressant.

Conventional indications: Leukemia, acute lymphocytic (treatment); Leukemia, acute nonlymphocytic (treatment); Leukemia, chronic myelocytic (treatment); Leukemia, chronic lymphocytic (treatment); Carcinoma, ovarian, epithelial (treatment); Carcinoma, breast (treatment); Neuroblastoma (treatment); Retinoblastoma (treatment); Carcinoma, lung,

non-small cell (treatment); Carcinoma, lung, small cell (treatment); Carcinoma, cervical (treatment); Carcinoma, endometrial (treatment); Carcinoma, bladder (treatment); Carcinoma, prostatic (treatment); Carcinoma, testicular (treatment); Wilms' tumor (treatment); Carcinoma, adrenocortical (treatment); Lymphomas, Hodgkin's (treatment); Lymphomas, non-Hodgkin's (treatment); Multiple myeloma (treatment); Mycosis fungoides (treatment); Nephrotic syndrome (treatment); Ewing's sarcoma (treatment); Osteosarcoma, (treatment); Sarcomas, soft tissue (treatment); Tumors, germ cell, ovarian (treatment); Tumors, brain, primary (treatment); Tumors, trophoblastic, gestational (treatment); Thymoma (treatment); Histiocytosis X (treatment); Waldenström's macroglobulinemia; Transplant rejection, organ (prophylaxis); Arthritis, rheumatoid (treatment); Wegener's granulomatosis (treatment); Lupus erythematosus, systemic; Dermatomyositis, systemic (treatment); Multiple sclerosis (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: hair, loss of; *headache*.

FACE: *flushing or redness of face; myxedema* (swollen lips).

MOUTH: *stomatitis* (sores in mouth and on lips).

STOMACH: appetite, loss of; nausea; vomiting; *pain*.

ABDOMEN: *colitis, hemorrhagic* (black, tarry stools).

RECTUM: *diarrhea*.

BLADDER: cystitis, hemorrhagic (blood in urine; painful urination) (with high-does and/or long-term therapy); cystitis, nonhemorrhagic (with high-dose and/or long-term therapy); *fibrosis, with or without cystitis*.

KIDNEYS: nephropathy, uric acid (with high-dose and/or long-term therapy); nephrotoxicity (joint pain; lower back or side pain; swelling of feet or lower legs) (with high-dose and/or long-term therapy); *necrosis, tubular, renal; ureteritis, hemorrhagic*

URINE: *epithelial cells, urinary bladder, atypical, in urine*.

GENITALIA FEMALE: amenorrhea (missing menstrual periods).

CHEST: cardiotoxicity, including acute myopericarditis (fast heartbeat; fever or chills; shortness of breath) (with high-does and/or long-term therapy); fibrosis, pulmonary, interstitial (cough, shortness of breath); pneumonitis (cough, shortness of breath); *congestive heart failure, severe and sometimes fatal; hemopericardium; myocarditis, hemorrhagic; necrosis, myocardial; pericarditis*.

NAILS: darkening of fingernails.

PERSPIRATION: *sweating, increased*.

SKIN: darkening of skin; hair, loss of; *hives; itching; skin rash*.

GENERALITIES: immunosuppression; hair, loss of; infection (less frequently, fever or chills; cough or hoarseness ; lower back or side pain; painful or difficult urination); hyperuricemia (with high-does and/or long-term therapy); leukopenia (less frequently, fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); syndrome of inappropriate antidiuretic hormone (SIADH), condition resembling (dizziness, confusion, or agitation; unusual tiredness or weakness) (with high-does and/or long-term therapy); *anemia; thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *anaphylactic reaction* (sudden shortness of breath); *death* (due to anaphylaxis or congestive heart failure); *hepatitis*

(yellow eyes or skin); *hyperglycemia* (frequent urination; unusual thirst); *pain, redness, or swelling at site of injection*.

DIAGNOSTIC TESTS: *hyperuricemia*; *anemia*; *hyperglycemia*; *thrombocytopenia*.

Cycloserine (Systemic)

Commercial name(s): *Seromycin*.

Category: Antibacterial (antimycobacterial).

Conventional indications: Tuberculosis (treatment); Mycobacterial infections, atypical (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: anxiety; confusion; depression, mental; irritability, increased; mood or mental changes, other; nervousness; restlessness, increased; suicide, thoughts of.

HEAD: headache.

MOUTH: speech problems.

EXTREMITIES: twitching, muscle; *neuropathy, peripheral* (numbness, tingling, burning, pain, or weakness in the hands or feet).

SLEEP: drowsiness.

DREAMS: nightmares.

SKIN: *hypersensitivity* (skin rash).

GENERALITIES: **CNS toxicity** (anxiety; confusion; dizziness; drowsiness; increased irritability; increased restlessness; mental depression; muscle twitching or trembling; nervousness; nightmares; other mood or mental changes; speech problems; thoughts of suicide); **trembling; twitching, muscle;** *neuropathy, peripheral* (numbness, tingling, burning, pain, or weakness in the hands or feet); *seizures*.

Cyclosporine (Ophthalmic)

Commercial name(s): *Restasis*.

Category: Immunosuppressant (ophthalmic).

Conventional indications: Keratoconjunctivitis sicca (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *immunosuppression*; **burning, ocular** (burning or other discomfort of the eye); *discharge* (clear or yellow fluid from eye; sticky or matted eyelashes); *epiphora* (watery eye); *hyperemia, conjunctival* (redness of the white part of eyes or inside of eyelids); *pain; sensation, foreign body* (feeling of having something in the eye).

VISION: *disturbance, visual* (blurred vision; difficulty reading; halos around lights).

SKIN: *pruritus* (itching skin); *stinging*.

Cyclosporine (Systemic)

Commercial name(s): *Neoral; Sandimmune; SangCya.*

Category: Immunosuppressant; Antipsoriatic; Antirheumatic.

Conventional indications: Transplant rejection, organ (prophylaxis); Transplant rejection, organ (treatment); Arthritis, rheumatoid (treatment); Psoriasis, severe (treatment); Graft-versus-host disease (prophylaxis); Graft-versus-host disease (treatment); Nephrotic syndrome (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *lethargy.*

HEAD: *hirsutism* (increase in hair growth); *headache*; *hypertension*, *intracranial*, *benign*

EYE: *edema*, *optic disc* (papilloedema; blurred vision).

VISION: *impairment*, *visual.*

FACE: *acne*; *flushing of face.*

MOUTH: *hyperplasia*, *gingival* (bleeding, tender, or enlarged gums); bleeding, gum; soreness, gum.

STOMACH: *disturbances*, *gastrointestinal*; *dyspepsia*; *nausea*; *vomiting.*

ABDOMEN: *discomfort*, *abdominal*; *hepatotoxicity* (usually seen as elevations of hepatic enzymes and bilirubin, flu-like symptoms); *pancreatitis* (severe stomach pain with nausea and vomiting).

KIDNEYS: *nephrotoxicity* (interstitial fibrosis with tubular atrophy); *toxicity*, *renal* (blood in urine); *congestion*, *capillary*, *peritubular*; *fibrosis*, *interstitial*, *striped form of*, *with tubular atrophy*; *nephrotoxicity*, *chronic progressive* (serial deterioration in renal function and morphologic changes in the kidneys [interstitial fibrosis with tubular atrophy]); *tubulopathy*, *toxic.*

RESPIRATION: *distress*, *respiratory*, *acute.*

CHEST: *heartbeat*, *irregular* (earliest clinical indication of hyperkalemia); *tachycardia.*

EXTREMITIES: *tremor* (trembling and shaking of hands); *cramps*, *leg.*

SKIN: *hirsutism* (increase in hair growth); *acne*; *oily skin*; *malignancies.*

GENERALITIES: *immunosuppression*; *hirsutism* (increase in hair growth); *hypertension*; *hypomagnesemia*; *infection* (fever or chills; frequent urge to urinate); *seizures*; *acidosis*, *metabolic*, *hyperchloremic*; *anaphylaxis* (flushing of face and neck; wheezing or shortness of breath); *arteriopathy*; *blood pressure changes*; *death*; *encephalopathy* (agitation; back pain; blurred vision; coma; confusion; dizziness; drowsiness; fever; hallucinations; headache; irritability; mood or mental changes; seizures; stiff neck; unusual tiredness or weakness; vomiting); *failure*, *graft*; *heartbeat*, *irregular* (earliest clinical indication of hyperkalemia); *hemolytic-uremic syndrome*; *hyperkalemia* (confusion; irregular heartbeat; numbness or tingling in hands, feet, or lips; shortness of breath or difficult breathing; unexplained nervousness; unusual tiredness or weakness; weakness or heaviness of legs); *lymphomas*; *pancreatitis* (severe stomach pain with nausea and vomiting); *paresthesia* (tingling); *post-transplant lymphoproliferative disorder (PTLD)* (fever; general feeling of discomfort and illness; weight loss); *tachycardia*; *hyperesthesia* (tingling in the hands and feet).

DIAGNOSTIC TESTS: *hypomagnesemia*; *acidosis*, *metabolic*, *hyperchloremic*; *hyperkalemia.*

Cyproterone (Systemic)

Commercial name(s): *Androcur; Androcur Depot.*

Category: Antineoplastic.

Conventional indications: Carcinoma, prostatic (treatment, palliative).

Primary Actions or Pathogenetic Symptoms

MIND: *depression* (mood or mental changes).

VERTIGO: *gait, abnormal* (change in walking and balance; clumsiness or unsteadiness); *syncope* (fainting or light-headedness when getting up from a lying or sitting position; unusually fast heartbeat; palpitations).

HEAD: *alopecia* (hair loss; thinning of hair); *cerebrovascular accident* (blurred vision; headache, sudden and severe; inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe); *hirsutism* (unusual increase in hair growth).

VISION: *abnormal vision.*

STOMACH: *nausea; vomiting.*

ABDOMEN: *carcinoma, liver; cirrhosis of the liver; failure, liver* (abdominal pain or tenderness; clay colored stools; dark urine; decreased appetite; fever; itching; loss of appetite; nausea and vomiting; swelling of feet or lower legs; yellow eyes or skin); *hepatomegaly; pancreatitis.*

RECTUM: *constipation; diarrhea* (increase in bowel movements; loose stools; soft stools).

KIDNEYS: *failure, renal* (lower back/side pain; decreased frequency/amount of urine; bloody urine; increased thirst; increased blood pressure).

GENITALIA MALE: **impotence** (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection); **libido, increased** (increase in sexual ability, desire, drive, or performance; increased interest in sexual intercourse).

GENITALIA FEMALE: **libido, increased** (increase in sexual ability, desire, drive, or performance; increased interest in sexual intercourse).

CHEST: **galactorrhea** (unexpected or excess milk flow from breasts); **gynecomastia** (swelling of the breasts or breast soreness in both females and males); *embolism, pulmonary; failure, heart* (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; swelling of face, fingers, feet, or lower legs; tightness in chest); *infarction, myocardial; tachycardia* (fast, pounding, or irregular heartbeat or pulse).

EXTREMITIES: *hemiplegia* (inability to move legs or arms; paralysis of one side of the body); *myasthenia* (loss of strength or energy; muscle pain or weakness).

SKIN: *alopecia* (hair loss; thinning of hair); *dermatitis, exfoliative* (blisters on skin; general feeling of discomfort or illness; red, thickened, or scaly skin; swollen and/or painful glands); *dryness; hirsutism* (unusual increase in hair growth); *photosensitivity* (increased sensitivity of skin to sunlight; itching; redness or other discoloration of skin; severe sunburn; skin rash).

GENERALITIES: allergic reaction (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; wheezing); alopecia (hair loss; thinning of hair); anemia (pale skin; unusual tiredness or weakness); carcinoma, liver; diabetes mellitus (dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; loss of consciousness; stomachache; sweating; unexplained weight loss; vomiting); encephalopathy (agitation; back pain; confusion; drowsiness; fever; hallucinations; irritability; stiff neck; vomiting); failure, liver (abdominal pain or tenderness; clay colored stools; dark urine; decreased appetite; fever; itching; loss of appetite; nausea and vomiting; swelling of feet or lower legs; yellow eyes or skin); fatigue (tiredness or weakness); hemiplegia (inability to move legs or arms; paralysis of one side of the body); hirsutism (unusual increase in hair growth); infarction, myocardial; injection site reaction (bleeding, blistering, burning, coldness, or discoloration of skin; feeling of pressure); leukopenia (black, tarry stools; painful or difficult urination; sore throat; sores, ulcers, or white spots on lips or in mouth); myasthenia (loss of strength or energy; muscle pain or weakness); pancreatitis; tachycardia (fast, pounding, or irregular heartbeat or pulse); thrombocytopenia (black, tarry stools; chest pain; chills; fever; sore throat; swollen glands; unusual bleeding or bruising); thrombosis (severe headaches of sudden onset; sudden loss of coordination; pains in chest, groin, or legs, especially calves of legs; sudden onset of shortness of breath for no apparent reason; sudden onset of slurred speech; sudden vision changes); weight gain or loss.

DIAGNOSTIC TESTS: anemia; leukopenia; thrombocytopenia.

Cysteamine (Systemic)

Commercial name(s): *Cystagon*.

Category: Nephropathic cystinosis therapy.

Conventional indications: Cystinosis, nephropathic (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: **lethargy** (drowsiness); confusion; depression, mental.

VERTIGO: dizziness.

HEAD: headache.

MOUTH: odor, breath.

THROAT: sore throat.

STOMACH: **anorexia** (loss of appetite); **nausea**; **vomiting**.

ABDOMEN: **pain, abdominal**.

RECTUM: **diarrhea**; constipation.

FEVER: **fever**.

SKIN: **skin rash**; *erythema multiforme bullosa*; *necrolysis, epidermal, toxic*.

GENERALITIES: trembling; anemia (unusual tiredness or weakness); dehydration (increased thirst); *erythema multiforme bullosa*; leukopenia (sore throat and fever); seizures (convulsions).

DIAGNOSTIC TESTS: anemia; leukopenia.

Cytarabine (Systemic)

Commercial name(s): *Cytosar; Cytosar-U.*

Category: Antineoplastic.

Conventional indications: Leukemia, acute nonlymphocytic (treatment); Leukemia, acute lymphocytic (treatment); Leukemia, chronic myelocytic (treatment); Leukemia, meningeal (prophylaxis and treatment); Lymphomas, non-Hodgkin's (treatment); Lymphomas, Hodgkin's (treatment); Myelodysplastic syndrome (treatment); Carcinomatous meningitis (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *alopecia* (loss of hair); *headache, especially after intrathecal administration.*

MOUTH: *stomatitis* (sores in mouth and on lips).

THROAT: *esophagitis* (difficulty in swallowing; heartburn).

STOMACH: *appetite, loss of; nausea; vomiting; hemorrhage, gastrointestinal* (black, tarry stools).

ABDOMEN: *hemorrhage, gastrointestinal* (black, tarry stools); *hepatotoxicity* (yellow eyes or skin).

RECTUM: *diarrhea; hemorrhage, gastrointestinal* (black, tarry stools).

BLADDER: *retention, urinary* (decrease in urination).

KIDNEYS: *nephropathy, uric acid* (joint pain; lower back or side pain; swelling of feet or lower legs).

RESPIRATION: *pneumonitis, interstitial, diffuse* (cough; shortness of breath).

CHEST: *edema, pulmonary; pneumonitis, interstitial, diffuse* (cough; shortness of breath).

SKIN: *alopecia* (loss of hair); *freckling; itching; cellulitis.*

GENERALITIES: **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *alopecia* (loss of hair); *central nervous system (CNS) toxicity, cerebellar or cerebral* (numbness or tingling in fingers, toes, or face; unusual tiredness); *hyperuricemia; anemia, megaloblastic* (fainting spells; irregular heartbeat; unusual tiredness; weakness); *bone marrow depression* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); *drug reaction or ara-C syndrome* (bone or muscle pain; chest pain; fever; general feeling of discomfort or illness or weakness; reddened eyes; skin rash); *thrombophlebitis* (pain at injection site).

DIAGNOSTIC TESTS: **leukopenia; thrombocytopenia; hyperuricemia; anemia, megaloblastic.**

Cytarabine, Liposomal (Intrathecal)

Commercial name(s): *DepoCyt*.

Category: Antineoplastic.

Conventional indications: Meningitis, lymphomatous (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion*.

HEAD: *arachnoiditis, chemical* (back pain; cerebrospinal fluid [CSF] pleocytosis; fever; headache; nausea; neck pain or rigidity; vomiting).

RECTUM: *constipation*.

BLADDER: *incontinence, urinary*.

BACK: *arachnoiditis, chemical* (back pain; cerebrospinal fluid (CSF) pleocytosis; fever; headache; nausea; neck pain or rigidity; vomiting).

EXTREMITIES: *edema, peripheral* (swelling of fingers, hands, arms, lower legs, or feet)

SLEEP: *somnolence* (sleepiness).

GENERALITIES: *arachnoiditis, chemical* (back pain; cerebrospinal fluid (CSF) pleocytosis; fever; headache; nausea; neck pain or rigidity; vomiting); **asthenia** (weakness); *neutropenia* (lower back or side pain; fever or chills; cough or hoarseness; painful or difficult urination; sore throat); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *anaphylactic reaction* (fast or irregular breathing; puffiness or swelling around face; shortness of breath; sudden, severe decrease in blood pressure); *anemia* (unusual tiredness or weakness); encephalopathy.

DIAGNOSTIC TESTS: *neutropenia; thrombocytopenia; anemia*.

Dacarbazine (Systemic)

Commercial name(s): DTIC; DTIC-Dome.

Category: Antineoplastic.

Conventional indications: Melanoma, malignant (treatment); Lymphomas, Hodgkin's (treatment); Sarcomas, soft tissue (treatment); Carcinoma, islet cell (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *hair, loss of.*

FACE: *flushing; numbness.*

MOUTH: *stomatitis* (sores in mouth and on lips).

STOMACH: *appetite, loss of; nausea; vomiting.*

ABDOMEN: *hepatotoxicity; necrosis, hepatocellular* (fever; stomach pain; yellow eyes or skin); *thrombosis, hepatic vein.*

SKIN: *hair, loss of.*

GENERALITIES: *anemia; extravasation and tissue damage or pain in injected vein* (redness, swelling, or pain at site of injection); **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *hair, loss of; influenza-like syndrome* (fever; feelings of uneasiness; joint or muscle pain); *anaphylaxis* (shortness of breath; swelling of face); *bone marrow depression* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); *death* (due to hepatotoxicity or thrombocytopenia); *thrombosis, hepatic vein; toxicity, local* (burning and vein pain).

DIAGNOSTIC TESTS: *anemia; leukopenia; thrombocytopenia.*

Daclizumab (Systemic)

Commercial name(s): Zenapax.

Category: Immunosuppressant; Monoclonal antibody.

Conventional indications: Transplant rejection, kidney (prophylaxis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

STOMACH: *dyspepsia* (heartburn); *nausea; vomiting.*

RECTUM: *constipation; diarrhea.*

RESPIRATION: *dyspnea* (shortness of breath).

CHEST: *edema, pulmonary* (coughing; shortness of breath); *pain; tachycardia* (rapid heartbeat).

EXTREMITIES: *arthralgia* (joint pain); *edema, peripheral* (swelling of feet or lower legs); *myalgia* (muscle pain); *tremor* (trembling or shaking of the hands or feet).

SLEEP: *insomnia* (trouble in sleeping).

FEVER: *fever.*

GENERALITIES: *immunosuppression*; *arthralgia* (joint pain); *healing, wound, slow*; *hypertension*; *hypotension* (dizziness); *infection, wound* (red, tender, or oozing skin at incision); *myalgia* (muscle pain); *tachycardia* (rapid heartbeat); *tremor* (trembling or shaking of the hands or feet); *weakness*; *hyperglycemia* (frequent urination).

DIAGNOSTIC TESTS: *hyperglycemia*.

Dactinomycin (Systemic)

Commercial name(s): *Cosmegen*.

Category: Antineoplastic.

Conventional indications: Ewing's sarcoma (treatment); Carcinoma, testicular (treatment); Rhabdomyosarcoma (treatment); Wilm's Tumor (treatment); Tumors, trophoblastic, gestational (treatment); Sarcoma, Kaposi's (treatment); Osteosarcoma (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *lethargy* (unusual drowsiness, dullness, tiredness, weakness; feeling of sluggishness).

HEAD: *hair, loss of*.

EYE: *hair, loss of, eyebrows*.

FACE: *cheilitis* (chapped, red, or swollen lips; scaling, redness, burning, pain, or other signs of inflammation of lips).

MOUTH: *stomatitis, ulcerative* (sores in mouth and on lips).

THROAT: *esophagitis* (difficulty in swallowing; heartburn); *dysphagia* (difficulty swallowing); *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: *distress, gastric* (combination therapy with radiation); *nausea*; *ulceration, gastrointestinal* (black, tarry stools; continuing diarrhea; continuing stomach pain); *vomiting*; *gastrointestinal ulceration* (black, tarry stools; diarrhea; stomach pain); *ulceration, mucosal, superficial, gastric* (isolation-perfusion administration).

ABDOMEN: *ulceration, gastrointestinal* (black, tarry stools; continuing diarrhea; continuing stomach pain); *ascites*; *hepatomegaly*; *hepatotoxicity* (yellow eyes or skin); *pain, abdominal*.

RECTUM: *proctitis* (black, tarry stools; continuing diarrhea); *diarrhea*.

KIDNEYS: *abnormalities of renal function*; *nephropathy*, *uric acid* (joint pain; lower back or side pain; swelling of feet or lower legs).

EXTREMITIES: *contracture of the arms* (if extravasation occurs during intravenous use); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving).

FEVER: *fever*.

SKIN: *acne*; *darkening of skin* (if patient has received previous radiation therapy); *hair, loss of*; *rash*; *redness*; *cellulites*; *epidermolysis* (if extravasation occurs during intravenous use, with regional limb perfusion); *eruptions* (blisters); *erythema* (if extravasation occurs

during intravenous use, with regional limb perfusion); *erythema flare-up* (flushing, redness of skin; unusually warm skin).

GENERALITIES: **anemia, possibly progressing to aplastic anemia** (unusual tiredness or weakness); **fatigue** (unusual tiredness or weakness); **hair, loss of; infection; inflammation of mucous membranes at the irradiated site** (combination therapy with radiation); **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **malaise** (general feeling of discomfort or illness; unusual tiredness or weakness); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *abnormalities, hepatic function test* (yellow eyes or skin); *agranulocytosis*; *anaphylaxis* (wheezing); *aspartate aminotransferase, serum, increased AST (SGOT)*; *bone marrow depression* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); *damage, soft tissue, in the exposed area*; *death*; *edema* (if extravasation occurs during intravenous use, with regional limb perfusion); *healing, wound, impaired* (isolation-perfusion administration); *hepatitis*; *hyperuricemia* (joint pain; lower back or side pain; swelling of feet or lower legs); *hypocalcemia* (abdominal cramps; confusion; convulsions; difficulty in breathing; irregular heartbeats; mood or mental changes; muscle cramps in hands, arms, feet, legs, or face; numbness and tingling around the mouth, fingertips, or feet; shortness of breath; tremor); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *myelosuppression* (isolation-perfusion administration); *pancytopenia*; *phlebitis* (pain at injection site); *retardation, growth*; *reticulocytopenia*; *thrombosis, venous*.

DIAGNOSTIC TESTS: **anemia, possibly progressing to aplastic anemia; leukopenia; thrombocytopenia**; *abnormalities, hepatic function*; *agranulocytosis*; *aspartate aminotransferase, serum, increased AST (SGOT)*; *bone marrow depression*; *hyperuricemia*; *hypocalcemia*; *pancytopenia*; *reticulocytopenia*.

Dalteparin (Systemic)

Commercial name(s): *Fragmin*.

Category: Anticoagulant; Antithrombotic.

Conventional indications: Angina pectoris, unstable (treatment); Myocardial infarction, non-Q-wave (treatment); Thromboembolism, pulmonary (prophylaxis); Thrombosis, deep venous (prophylaxis); Thrombosis, deep venous (treatment); Thrombosis of the extracorporeal system during hemodialysis (prophylaxis).

Primary Actions or Pathogenetic Symptoms

BACK: *hematoma, epidural or spinal* (back pain; bowel/bladder dysfunction; leg weakness; numbness; paralysis; paresthesias); *pain*.

EXTREMITIES: *osteopenic effect, weak* (in dogs); *osteoporosis*; *paraplegia*.

SKIN: *allergic reaction* (fever; skin rash, hives, or itching); *necrosis* (blue-green to black skin discoloration; pain, redness, or sloughing of skin at place of injection).

GENERALITIES: *hemorrhage* (bleeding gums; coughing up blood; difficulty in breathing or swallowing; dizziness; headache; increased menstrual flow or vaginal bleeding; nosebleeds; paralysis; prolonged bleeding from cuts; red or dark brown urine; red or black, tarry stools; shortness of breath; unexplained pain, swelling, or discomfort, especially in the chest, abdomen, joints, or muscles; unusual bruising; vomiting of blood or coffee ground-like material; weakness); **hematoma at injection site** (deep, dark purple bruise, pain, or swelling at place of injection); *pain at injection site*; *anaphylactoid reaction* (bluish discoloration, flushing, or redness of skin; coughing; difficulty in swallowing; dizziness or feeling faint, severe; skin rash, hives [may include giant urticaria], or itching; swelling of eyelids, face, or lips; tightness in chest, troubled breathing, and/or wheezing); *osteopenic effect, weak* (in dogs); *osteoporosis*; *paraplegia*; *thrombocytopenia* (bleeding from mucous membranes; rash consisting of pinpoint, purple-red spots, often beginning on the legs; unusual bruising); *thrombocytopenia with thrombosis syndrome*.

DIAGNOSTIC TESTS: *osteoporosis*; *thrombocytopenia* (bleeding from mucous membranes; rash consisting of pinpoint, purple-red spots, often beginning on the legs; unusual bruising); *thrombocytopenia with thrombosis syndrome*.

Danaparoid (Systemic)

Commercial name(s): *Orgaran*.

Category: Antithrombotic.

Conventional indications: Thromboembolism, pulmonary (prophylaxis); Thrombosis, deep venous (prophylaxis).

Primary Actions or Pathogenetic Symptoms

NOSE: nosebleed.

STOMACH: *nausea*; vomiting of blood or material that looks like coffee grounds.

RECTUM: *constipation*.

STOOL: black, tarry stools; bloody stools.

URINE: blood in urine.

RESPIRATION: shortness of breath.

COUGH: coughing up blood.

BACK: *hematoma, epidural or spinal* (back pain; bowel/bladder dysfunction; leg weakness; numbness; paralysis; paresthesias); *pain*.

FEVER: fever.

SKIN: *skin rash*.

GENERALITIES: *hemorrhage* (bleeding gums; coughing up blood; difficulty in breathing or swallowing; dizziness; headache; increased menstrual flow or vaginal bleeding; nosebleeds; paralysis; prolonged bleeding from cuts; red or dark brown urine; red or black, tarry stools; shortness of breath; unexplained pain, swelling, or discomfort, especially in the chest, abdomen, joints, or muscles; unusual bruising; vomiting of blood or coffee ground-like material; weakness); **pain at injection site**; *thrombocytopenia, type II*; *white clot syndrome*; anemia, hypochromic (fatigue; headache; irritability; lightheadedness); bleeding, persistent or oozing from mucous membranes or surgical

wound; bruising; ecchymosis (large, non-elevated blue or purplish patches in the skin); hematoma.

DIAGNOSTIC TESTS: *thrombocytopenia, type II*; anemia, hypochromic; blood in urine.

Danazol (Systemic)

Commercial name(s): *Cyclomen; Danocrine.*

Category: Gonadotropin inhibitor; Angioedema (hereditary) prophylactic.

Conventional indications: Endometriosis (treatment); Breast disease, fibrocystic (treatment); Angioedema, hereditary (prophylaxis); Menorrhagia, primary (treatment); Gynecomastia (treatment); Puberty, precocious (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *hypertension, intracranial, benign* (decrease in vision; double vision; headache, severe; nausea; papilledema; vomiting); *thrombosis, sagittal sinus* (extreme exhaustion; headache).

EYE: *cataracts* (gradual blurring or loss of vision); *papilledema*.

FACE: *virilization* (acne; oily hair; oily skin).

MOUTH: *bleeding gums*.

ABDOMEN: *adenoma, hepatocellular; dysfunction, hepatic* (yellow eyes or skin); *hemorrhage, intra-abdominal, acute, potentially life-threatening; jaundice, cholestatic; pancreatitis, acute* (bloating and tenderness of abdomen; fast heartbeat; fever; nausea; pain in upper or middle abdomen, continuing, sudden, and severe; unusual tiredness; vomiting; yellow eyes or skin, transient); *peliosis hepatis* (dark-colored urine; fever; hives; light-colored stools; loss of appetite, continuing; nausea; purple- or red-colored spots on body or inside the mouth or nose; sore throat; vomiting) (has occurred during long-term treatment).

BLADDER: *telangiectasia, bladder* (blood in urine).

URINE: *telangiectasia, bladder* (blood in urine).

GENITALIA MALE: *atrophy, testicular* (decrease in size of testicles); *semen viscosity and volume, abnormalities in, and in sperm count and motility* (may occur during long-term therapy).

GENITALIA FEMALE: *gonadotropin inhibitor; amenorrhea* (stopping of menstrual periods); **bleeding, breakthrough** (heavier, irregular vaginal bleeding between regular menses); **menstrual periods, irregular; spotting** (lighter, irregular vaginal bleeding between regular menses); *hypoestrogenemia* (flushing or redness of skin; mood or mental changes; nervousness; sweating); *vaginitis* (burning, dryness, or itching of vagina; vaginal bleeding); *virilization* (enlarged clitoris; hoarseness or deepening of voice; unnatural hair growth).

CHEST: **breast size, decrease in** (in females); *discharge from nipple*.

EXTREMITIES: *edema, peripheral* (rapid weight gain; swelling of feet or lower legs); *rhabdomyolysis* (dark-colored urine; muscle cramps or spasms; unusual tiredness or weakness); *carpal tunnel syndrome* (burning, numbness, pain, or tingling in all fingers except smallest finger).

SKIN: *virilization* (acne; oily hair; oily skin); *photosensitivity; skin rash*.

GENERALITIES: *gonadotropin inhibitor*; **weight gain** (in females); *edema, peripheral* (rapid weight gain; swelling of feet or lower legs); *hypoestrogenemia* (flushing or redness of skin; mood or mental changes; nervousness; sweating); *rhabdomyolysis* (dark-colored urine; muscle cramps or spasms; unusual tiredness or weakness); *adenoma, hepatocellular*; *eosinophilia* (general feeling of illness; suddencoughing episodes); *death*; *jaundice, cholestatic*; *leukocytosis* (chills; cough; eye pain; general feeling of illness; headache; sore throat; unusual tiredness); *pancreatitis, acute* (bloating and tenderness of abdomen; fast heartbeat; fever; nausea; pain in upper or middle abdomen, continuing, sudden, and severe; unusual tiredness; vomiting; yellow eyes or skin, transient); *peliosis hepatis* (dark-colored urine; fever; hives; light-colored stools; loss of appetite, continuing; nausea; purple- or red-colored spots on body or inside the mouth or nose; sore throat; vomiting) (has occurred during long-term treatment); *polyneuritis, acute idiopathic* (numbness; tingling sensation or weakness in both legs, moving upward to both arms, trunk, and face); *Stevens-Johnson syndrome* (chest pain; cough; diarrhea; fever; general feeling of illness; joint pain; lesions on skin and inside the mouth or nose; muscle aches; sore throat; vomiting); *thrombocytopenia* (heavier menstrual periods; more frequent nosebleeds; unusual bruising or bleeding); *thromboembolism or thrombotic and thrombophlebitic events including stroke* (chest pain; complete or partial numbness or weakness on one side of body; cough; coughing up blood; difficulty in speaking; difficulty in swallowing; double vision; loss of muscle coordination; nausea; restlessness; shortness of breath; sweating; weakness) (may be life-threatening or fatal); *thrombosis, sagittal sinus* (extreme exhaustion; headache)
DIAGNOSTIC TESTS: *hypoestrogenemia*; *eosinophilia*; *leukocytosis*; *thrombocytopenia*.

Dantrolene (Systemic)

Commercial name(s): *Dantrium*; *Dantrium Intravenous*.

Category: Malignant hyperthermia therapy adjunct; Antispastic; Neuroleptic malignant syndrome therapy adjunct; Muscle phosphorylase deficiency therapy adjunct; Duchenne muscular dystrophy therapy adjunct.

Conventional indications: Hyperthermia, malignant (prophylaxis and treatment adjunct) [Intravenous dantrolene]; Spasticity (treatment) [Oral dantrolene]; Neuroleptic malignant syndrome (treatment); Pain, exercise-induced, in muscle phosphorylase deficiency (treatment) or Pain, exercise-induced, in Duchenne muscular dystrophy (treatment) [Oral dantrolene]; Spasms, flexor (treatment) [Oral dantrolene].

Primary Actions or Pathogenetic Symptoms

MIND: *confusion* (with chronic oral use); *depression, mental* (with chronic oral use); *nervousness, unusual* (with chronic oral use).

VERTIGO: *dizziness* (with short-term [up to 3 days] or chronic oral use); *lightheadedness* (with short-term [up to 3 days] or chronic oral use).

HEAD: *headache* (with chronic oral use).

VISION: *blurred or double vision or any change in vision* (with chronic oral use).

MOUTH: *speech, slurring of, or other speech problems* (with chronic oral use).

THROAT: *swallowing, difficulty in* (with chronic oral use).

STOMACH: **nausea** (with short-term [up to 3 days] or chronic oral use); **vomiting** (with short-term [up to 3 days] or chronic oral use); appetite, loss of (with chronic oral use); cramps (with short-term [up to 3 days] or chronic oral use); discomfort (with short-term [up to 3 days] or chronic oral use); anorexia (with chronic oral use).

ABDOMEN: cramps, abdominal (with short-term [up to 3 days] or chronic oral use); discomfort, abdominal (with short-term [up to 3 days] or chronic oral use); distention, abdominal (with chronic oral use); hepatotoxicity (yellow eyes or skin) (with chronic oral use); obstruction, bowel (with chronic oral use).

RECTUM: **diarrhea, mild to severe** (with short-term [up to 3 days] or chronic oral use); constipation, mild to severe (with chronic oral use).

BLADDER: urge to urinate, frequent (with chronic oral use); urination, difficult (with chronic oral use); urination, uncontrolled (with chronic oral use); urine, sudden decrease in amount of (with chronic oral use).

URINE: bloody urine (with chronic oral use); dark urine (with chronic oral use).

RESPIRATION: depression, respiratory (shortness of breath or slow or troubled breathing) (with short-term [up to 3 days] or chronic oral use).

CHEST: effusion, pleural, with pericarditis (chest pain) (with chronic oral use).

EXTREMITIES: **weakness, muscle, not affecting muscles of respiration** (with short-term [up to 3 days] or chronic oral use); phlebitis (pain, tenderness, changes in skin color, or swelling of foot or leg) (with chronic oral use).

SLEEP: **drowsiness** (with short-term [up to 3 days] or chronic oral use); trouble in sleeping (with chronic oral use).

CHILL: chills (with chronic oral use).

FEVER: fever (with chronic oral use).

SKIN: dermatitis, allergic (skin rash, hives, or itching) (with chronic oral use).

GENERALITIES: **feeling of discomfort or illness, general** (with short-term [up to 3 days] or chronic oral use); **tiredness, unusual** (with short-term [up to 3 days] or chronic oral use); **weakness, muscle, not affecting muscles of respiration** (with short-term [up to 3 days] or chronic oral use); convulsions (with chronic oral use); phlebitis (pain, tenderness, changes in skin color, or swelling of foot or leg) (with chronic oral use); allergic or idiosyncratic reaction; hepatitis, overt (with chronic therapy).

DIAGNOSTIC TESTS: bloody urine (with chronic oral use); dark urine (with chronic oral use).

Dapiprazole (Ophthalmic)

Commercial name(s): *Rev-Eyes*.

Category: Antimydriatic.

Conventional indications: Mydriasis, reversal of.

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

EYE: miosis; **burning of eye upon administration of medication; injection, conjunctival, usually lasting 20 minutes** (redness of the white part of the eye); browache;

chemosis (swelling of the membrane covering the white part of the eye); *dryness*; *edema of cornea* (swelling of the clear part of the eye); *edema of eyelid* (swelling of eyelid); *erythema of eyelid* (redness of eyelid); *keratitis*, *punctate* (severe irritation of the clear part of the eye); *itching*; *photophobia* (increased sensitivity of eye to light); *ptosis* (drooping of upper eyelid); *tearing*.

VISION: *blurring of vision*; *acuity, central visual, reduced*; *adaptation, dark, difficulty in*; *field of vision, reduced*.

Dapsone (Systemic)

Commercial name(s): *Avlosulfon*.

Category: Antibacterial (antileprosy agent); Dermatitis herpetiformis suppressant; Antiprotozoal; Antifungal.

Conventional indications: Leprosy (treatment); Dermatitis herpetiformis (treatment); Actinomycotic mycetoma (treatment); Cicatricial pemphigoid (treatment); Dermatitis, subcorneal pustular (treatment); Granuloma annulare (treatment); Lupus erythematosus, systemic (treatment); Malaria (prophylaxis); Pemphigoid (treatment); Pneumonia, *Pneumocystis carinii* (prophylaxis and treatment); Polychondritis, relapsing (treatment); Pyoderma gangrenosum (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *mood or other mental changes*; *nervousness*.

HEAD: *headache*.

STOMACH: *disturbances, gastrointestinal* (anorexia; nausea or vomiting).

ABDOMEN: *damage, hepatic* (yellow eyes or skin); *disturbances, gastrointestinal* (anorexia; nausea or vomiting).

EXTREMITIES: *neuritis, peripheral* (numbness, tingling, pain, burning, or weakness in hands or feet); *motor weakness, peripheral* (in high doses).

SLEEP: *insomnia*.

SKIN: **hypersensitivity** (skin rash); *dermatitis, exfoliative* (itching, dryness, redness, scaling, or peeling of the skin or loss of hair); *erythema multiforme*; *erythema nodosum*; *erythema, toxic*; *morbilliform and scarlatiniform reactions*; *necrolysis, epidermal, toxic*.

GENERALITIES: **anemia, hemolytic** (back, leg, or stomach pains; loss of appetite; pale skin; unusual tiredness or weakness; fever); **methemoglobinemia** (cyanosis - bluish fingernails, lips, or skin; difficult breathing; unusual tiredness or weakness); *agranulocytosis*; *anemia, aplastic*; *blood dyscrasias* (fever and sore throat; unusual bleeding or bruising; unusual tiredness and weakness); *death* (due to agranulocytosis, aplastic anemia, and other blood dyscrasias); *erythema multiforme*; *hemolysis*; *motor weakness, peripheral* (in high doses); *neuritis, peripheral* (numbness, tingling, pain, burning, or weakness in hands or feet); “*sulfone syndrome*” (fever; malaise; exfoliative dermatitis; jaundice; lymphadenopathy; methemoglobinemia; anemia) (a hypersensitivity reaction that usually occurs after 6 to 8 weeks of therapy) (rebound effect?); *toxicity, central nervous system* (headache; insomnia; nervousness).

DIAGNOSTIC TESTS: **anemia, hemolytic; methemoglobinemia; agranulocytosis; anemia, aplastic; hemolysis.**

Dapsone (Topical)

Commercial name(s): *Aczone.*

Category: Antiacne agent.

Conventional indications: Acne vulgaris (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *behavior, suicidal* (attempts at killing oneself); *depression* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); *psychosis* (feeling that others can hear your thoughts; feeling that others are watching you or controlling your behavior; feeling, seeing, or hearing things that are not there; severe mood or mental changes; unusual behavior).

HEAD: *headache.*

NOSE: *nasopharyngitis* (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

FACE: *swelling, facial.*

THROAT: *nasopharyngitis* (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache); *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: *pain, abdominal* (stomach pain); *vomiting, severe.*

ABDOMEN: *pain, abdominal* (stomach pain); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RESPIRATION: *infection, upper respirator tract* (ear congestion; nasal congestion; chills; cough; fever; sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

COUGH: *cough.*

EXTREMITIES: *sprain, joint; movements, muscle, tonic and clonic.*

FEVER: *pyrexia* (fever).

SKIN: **dryness; erythema** (flushing, redness of skin; unusually warm skin); **oiliness; peeling; burning.**

GENERALITIES: *infection, upper respirator tract* (ear congestion; nasal congestion; chills; cough; fever; sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *influenza* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of

breath or troubled breathing; tightness of chest or wheezing); sprain, joint; *movements, muscle, tonic and clonic*; *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

Daptomycin (Systemic)

Commercial name(s): *Cubicin*.

Category: Antibacterial (systemic).

Conventional indications: Skin and skin-structure infections, complicated (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

STOMACH: nausea; vomiting; *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain).

ABDOMEN: *colitis, pseudomembranous, mild to life-threatening* (abdominal or stomach cramps; pain; bloating; abdominal tenderness; diarrhea, watery and severe, which may also be bloody; fever; increased thirst; nausea or vomiting; unusual tiredness or weakness; unusual weight loss).

RECTUM: constipation (difficulty having a bowel movement [stool]) (rebound effect?); diarrhea.

BLADDER: infections, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: failure, renal (agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness); infections, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

RESPIRATION: dyspnea (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

EXTREMITIES: pain, limb; *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving).

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep).

FEVER: fever.

SKIN: pruritus (itching skin); *skin rash*.

GENERALITIES: **injection site reaction** (bleeding, blistering, burning, coldness, discoloration of skin, feeling of pressure, hives, infection, inflammation, itching, lumps, numbness, pain, rash, redness, scarring, soreness, stinging, swelling, tenderness, tingling, ulceration, or warmth at site of injection); anemia (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); hypertension (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); hypotension (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or

weakness); *infections, fungal* (itching in genital or other skin areas scaling); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving).

DIAGNOSTIC TESTS: *anemia*.

Darbepoetin Alfa (Systemic)

Commercial name(s): *Aranesp*.

Category: Antianemic.

Conventional indications: Anemia associated with chronic renal failure (treatment); Anemia associated with chemotherapy in cancer patients (treatment); Anemia associated with malignancy (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache; *ischemic attack, transient* (confusion; numbness or tingling in face, arms or legs; trouble speaking, thinking or walking; headache); *stroke* (confusion; difficulty in speaking; slow speech; inability to speak; inability to move arms, legs, or facial muscles; double vision; headache).

STOMACH: nausea; vomiting.

ABDOMEN: pain, abdominal; peritonitis (abdominal or stomach pain; chills; nausea or vomiting).

RECTUM: constipation; diarrhea.

RESPIRATION: bronchitis (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); **dyspnea** (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); **infection, upper respiratory** (cough; fever; sneezing; or sore throat); **pneumonia** (chest pain; cough; fever or chills; shortness of breath; troubled breathing; tightness in chest; wheezing).

COUGH: cough.

CHEST: angina pectoris (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea); **arrest, cardiac** (stopping of heart; unconsciousness); **arrhythmias, cardiac** (dizziness; fainting; fast, slow, or irregular heartbeat; lightheadedness; pounding or rapid pulse); **bronchitis** (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); **congestive heart failure** (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing); **pain, unspecified; pneumonia** (chest pain; cough; fever or chills; shortness of breath; troubled breathing; tightness in chest; wheezing); *embolism, pulmonary* (anxiety; chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness); *infarction, myocardial, acute* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting).

BACK: pain.

EXTREMITIES: **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **edema, peripheral** (swelling of hands, ankles, feet, or lower legs); **myalgia** (muscle ache or pain); **pain, limb**.

FEVER: fever.

SKIN: **pruritus** (itching skin); **rash; allergic reaction** (skin rash; and urticaria).

GENERALITIES: **abscess** (accumulation of pus; swollen, red, tender area of infection; fever); **arrest, cardiac** (stopping of heart; unconsciousness); **arrhythmias, cardiac** (dizziness; fainting; fast, slow, or irregular heartbeat; lightheadedness; pounding or rapid pulse); **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **asthenia** (lack or loss of strength); **bacteremia** (rapid breathing; chills; fever; abdominal pain; nausea; diarrhea); **edema, centralized** (swelling); **fatigue; fluid overload** (decrease in amount of urine; noisy, rattling breathing; shortness of breath; swelling of fingers, hands, feet, or lower legs; troubled breathing at rest; weight gain); **hemorrhage, access; hypertension** (blurred vision; dizziness; headache; pounding in the ears; slow or fast heartbeat); **hypotension** (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position; sudden sweating; unusual tiredness or weakness); **infection, access; infection, upper respiratory** (cough; fever; sneezing; or sore throat); **influenza-like symptoms** (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **myalgia** (muscle ache or pain); **pain, injection site; sepsis** (chills; fever; fast heartbeat); **thrombosis, vascular access- (including thrombophlebitis, thrombophlebitis deep, thrombosis venous, thrombosis venous deep, thromboembolism and thrombosis)** (tenderness, pain, swelling, warmth, skin discoloration, and prominent superficial veins over affected area); convulsions (including grand mal and local convulsions) (seizures); dehydration (confusion; decreased urination; dizziness; dry mouth; fainting; increase in heart rate; lightheadedness; rapid breathing; sunken eyes; thirst; unusual tiredness or weakness; wrinkled skin); infarction, myocardial, acute (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); *allergic or anaphylactic reaction; anemia, severe, with or without cytopenias; aplasia, red cell, pure* (fever and sore throat; pale skin; unusual bleeding or bruising; unusual tiredness or weakness); *immunogenicity; polycythemia*.

DIAGNOSTIC TESTS: *anemia, severe, with or without cytopenias; aplasia, red cell, pure; polycythemia*.

Darifenacin (Systemic)

Commercial name(s): *Enablex*.

Category: Antispasmodic (urinary).

Conventional indications: Bladder hyperactivity (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

EYE: dryness.

VISION: *abnormal vision* (changes in vision).

NOSE: *rhinitis* (stuffy nose runny nose; sneezing); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

MOUTH: *dryness*.

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); *nausea*; *pain, abdominal* (stomach pain); *vomiting*.

ABDOMEN: *pain, abdominal* (stomach pain).

RECTUM: *constipation* (difficulty having a bowel movement [stool]).

BLADDER: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *disorder, urinary tract*; *retention, urinary* (decrease in urine volume; decrease in frequency of urination; difficulty in passing urine [dribbling]; painful urination).

KIDNEYS: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *disorder, urinary tract*.

GENITALIA FEMALE: *vaginitis* (itching of the vagina or genital area; pain during sexual intercourse; thick, white vaginal discharge with no odor or with a mild odor).

RESPIRATION: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing).

CHEST: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing).

BACK: *pain*.

EXTREMITIES: *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss).

SKIN: *dryness*; *pruritus* (itching skin); *rash*.

GENERALITIES: *asthenia* (lack or loss of strength); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); *flu syndrome* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains); *hypertension* (blurred vision; dizziness; nervousness headache; pounding in the ears; slow or fast heartbeat); *injury, accidental*; *pain*; *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *weight gain*.

Daunorubicin (Systemic)

Commercial name(s): *Cerubidine*.

Category: Antineoplastic.

Conventional indications: Leukemia, acute lymphocytic (treatment); Leukemia, acute nonlymphocytic (treatment); Neuroblastoma (treatment); Lymphomas, non-Hodgkin's (treatment); Ewing's sarcoma (treatment); Wilms' tumor (treatment); Leukemia, chronic myelocytic (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: hair, loss of.

MOUTH: stomatitis (sores in mouth and on lips).

THROAT: esophagitis.

STOMACH: nausea; vomiting; ulceration, gastrointestinal (stomach pain).

ABDOMEN: ulceration, gastrointestinal (stomach pain).

RECTUM: diarrhea.

KIDNEYS: nephropathy, uric acid (joint pain; lower back or side pain).

URINE: reddish urine.

CHEST: cardiotoxicity; congestive heart failure (irregular heartbeat; shortness of breath; swelling of feet and lower legs); myocarditis; pericarditis.

FEVER: drug reactions, febrile.

SKIN: hair, loss of; cellulites (caused by extravasation); darkening of skin (if patient has received previous radiation therapy); redness of skin (if patient has received previous radiation therapy); allergic reaction (skin rash or itching).

GENERALITIES: hair, loss of; infection (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **leukopenia**; hyperuricemia (joint pain; lower back or side pain); necrosis, tissue (pain at injection site) (caused by extravasation); thrombocytopenia (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); death; drug reactions, febrile.

DIAGNOSTIC TESTS: leukopenia; reddish urine; hyperuricemia; thrombocytopenia.

Daunorubicin, Liposomal (Systemic)

Commercial name(s): *DaunoXome*.

Category: Antineoplastic.

Conventional indications: Kaposi's sarcoma (KS), acquired immunodeficiency syndrome (AIDS)-associated (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness; syncope (fainting).

HEAD: headache; alopecia (loss of hair); folliculitis (painful, red, hot, or irritated hair follicles).

EYE: conjunctivitis (dry, irritated, itching, or red eyes); pain.

HEARING: tinnitus (ringing sound in ears).

FACE: edema (swelling of face).

MOUTH: bleeding, gingival (bleeding gums); dryness; stomatitis (sores in mouth and on lips); mucositis (sores in mouth and on lips).

TEETH: caries (tooth pain).

THROAT: *dysphagia* (difficulty swallowing).

STOMACH: **nausea; vomiting;** *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; bloody vomit).

ABDOMEN: **pain, abdominal;** *edema* (swelling of abdomen); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; bloody vomit).

RECTUM: **diarrhea; constipation;** *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; bloody vomit); *hemorrhoids* (bleeding after defecation; uncomfortable swelling around anus); *tenesmus* (frequent urge to defecate).

BLADDER: *dysuria* (painful or difficult urination); *nocturia* (unusual nighttime urination); *polyuria* (producing large amounts of pale, dilute urine).

RESPIRATION: **dyspnea** (shortness of breath; troubled breathing).

COUGH: *hemoptysis* (coughing up blood).

CHEST: *cardiotoxicity* (irregular heartbeat; shortness of breath; swelling of the feet and lower legs); *hemoptysis* (coughing up blood); *pain; tachycardia* (fast heartbeat); *congestive heart failure; infiltrations, pulmonary*.

EXTREMITIES: **neuropathy** (weakness or numbness in arms or legs); *arthralgia* (pain in joints); *edema* (swelling of fingers, hands, feet, or lower legs); *myalgia* (pain in muscles).

SLEEP: *insomnia* (sleeplessness); *somnolence* (extreme feeling of sleepiness).

CHILL: **rigors** (feeling unusually cold; shivering).

FEVER: *fever, neutropenic, higher frequency of*.

SKIN: **allergic reaction** (chills; fever; skin rash or itching); *alopecia* (loss of hair); *folliculitis* (painful, red, hot, or irritated hair follicles); *inflammation, injection site* (red, hot, or irritated skin at site of injection; pain at site of injection; swelling or lump under skin at site of injection) (if extravasation occurs).

GENERALITIES: **allergic reaction** (chills; fever; skin rash or itching); **infusion-related reaction** (back pain; chest tightness; flushing); **neuropathy** (weakness or numbness in arms or legs); **neutropenia** (cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; sore throat); *alopecia* (loss of hair); *anemia* (unusual tiredness or weakness); *arthralgia* (pain in joints); *edema* (swelling of abdomen, face, fingers, hands, feet, or lower legs; weight gain); *hypertension; inflammation, injection site* (red, hot, or irritated skin at site of injection; pain at site of injection; swelling or lump under skin at site of injection) (if extravasation occurs); *myalgia* (pain in muscles); *tachycardia* (fast heartbeat); *tremor* (uncontrollable movement of body); *thrombocytopenia* (black, tarry stools; unusual bleeding or bruising; blood in urine or stools; pinpoint red spots on skin); *infections, opportunistic, higher frequency of*.

DIAGNOSTIC TESTS: **neutropenia;** *anemia ; thrombocytopenia.*

Decongestants and Analgesics (Systemic)

Other commonly used names: Phenylephrine and Acetaminophen; Pseudoephedrine and Acetaminophen; Pseudoephedrine and Ibuprofen;

Commercial name(s): *Actamin Maximum Strength; Alka-Seltzer Plus Cold and Sinus; Altenol; Aminofen; Anacin Aspirin Free; Children's Mapap; Children's Tylenol Cold Bubble Gum Flavor; Children's Tylenol Cold Cherry Flavor; Children's Tylenol*

Decongestant; Counteract Children's Cold Multi-Symptom Plus Cough; Extra Strength Tylenol Allergy Sinus Multi-Symptom Relief; Extra Strength Tylenol Sinus with Coolburst – Daytime; Extra Strength Tylenol Sinus with Coolburst – Nighttime; Genapap; Genapap Sinus; Infants' Tylenol Cold Suspension Drops; Infants' Tylenol Plus Cold; Mapap; Mapap Arthritis Pain; Mapap Sinus PE; Sinutab Sinus; Sudafed PE Sinus Headache; Tylenol; Tylenol Sinus.

Category: Decongestant-analgesic.

Conventional indications: Congestion, nasal (treatment); Congestion, sinus (treatment); Headache, sinus (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness; restlessness; changes in behavior* (in children) [Salicylate-containing combinations]; *coma* [Acetaminophen-containing combinations]; *confusion* [Ibuprofen-containing combinations]; *depression, mental* [Ibuprofen-containing combinations]; *mood or mental changes* [Ibuprofen-containing combinations]; *psychotic episodes* (mood or mental changes); hallucination.

VERTIGO: *dizziness or lightheadedness* [Ibuprofen-containing combinations]; *dizziness, severe.*

HEAD: *headache, mild to moderate* [Ibuprofen-containing combinations] (rebound effect?); *edema, cerebral* [Acetaminophen-containing combinations]; *meningitis, aseptic* (headache, severe, with fever and stiff neck) [Ibuprofen-containing combinations]; *stroke, increased risk of* (rebound effect?).

EYE: *dryness* [Ibuprofen-containing combinations]; *irritation* [Ibuprofen-containing combinations]; *swelling* [Ibuprofen-containing combinations].

VISION: *amblyopia, toxic* (blurred vision or any change in vision) [Ibuprofen-containing combinations]; *blurred vision or any change in vision* [Ibuprofen-containing combinations].

HEARING: *ringing or buzzing in ears* [Ibuprofen-containing combinations]; *decreased hearing or any change in hearing* [Ibuprofen-containing combinations].

NOSE: *rhinitis, allergic* (unexplained runny nose or sneezing) [Ibuprofen-containing combinations] (rebound effect?).

FACE: *swelling of face.*

MOUTH: *stomatitis, aphthous* (sores, ulcers, or white spots on lips or in mouth) [Ibuprofen-containing combinations].

THROAT: *esophagitis* (burning feeling in throat, or chest) [Ibuprofen-containing combinations].

STOMACH: *cramps* (in overdose with Acetaminophen-containing combinations) [Ibuprofen-containing combinations]; *discomfort* [Ibuprofen-containing combinations];

heartburn [Ibuprofen-containing combinations; Salicylate-containing combinations];

indigestion [Ibuprofen-containing combinations; Salicylate-containing combinations];

irritation, gastrointestinal (mild stomach pain; nausea with or without vomiting) [Salicylate-containing combinations]; *nausea* (in overdose with Acetaminophen-containing combinations) [Ibuprofen-containing combinations];

pain (in overdose with Acetaminophen-containing combinations) [Ibuprofen-containing combinations]; *appetite, loss of or decreased* (in overdose with Acetaminophen-containing combinations)

[Ibuprofen-containing combinations]; bleeding, gastrointestinal, serious potential life-threatening (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds) [Salicylate-containing combinations]; ulceration, gastrointestinal (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds) [Salicylate-containing combinations]; vomiting (in overdose with Acetaminophen-containing combinations) [Ibuprofen-containing combinations]; gastritis (burning feeling in throat, chest, or stomach) [Ibuprofen-containing combinations]; ulceration, gastrointestinal, possibly with perforation and/or bleeding (abdominal pain, cramping, or burning, severe; bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; nausea, heartburn, and/or indigestion, severe and continuing) [Ibuprofen-containing combinations].

ABDOMEN: **cramps, abdominal** [Ibuprofen-containing combinations]; **discomfort** [Ibuprofen-containing combinations]; **indigestion** [Ibuprofen-containing combinations; Salicylate-containing combinations]; **irritation, gastrointestinal** (mild stomach pain; nausea with or without vomiting) [Salicylate-containing combinations]; **pain** [Ibuprofen-containing combinations]; bleeding, gastrointestinal, serious potential life-threatening (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds) [Salicylate-containing combinations]; bloated feeling [Ibuprofen-containing combinations]; gas [Ibuprofen-containing combinations]; ulceration, gastrointestinal (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds) [Salicylate-containing combinations]; damage, liver [Acetaminophen-containing combinations]; failure or disease, overt hepatic [Acetaminophen-containing combinations]; pancreatitis, acute (abdominal pain, fever with or without chills, swelling and/or tenderness in upper abdominal or stomach area) [Ibuprofen-containing combinations]; ulceration, gastrointestinal, possibly with perforation and/or bleeding (abdominal pain, cramping, or burning, severe; bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; nausea, heartburn, and/or indigestion, severe and continuing) [Ibuprofen-containing combinations]; hepatotoxicity (pain or tenderness in upper abdominal area; swelling of abdominal area) [Acetaminophen-containing combinations].

RECTUM: bleeding, gastrointestinal, serious potential life-threatening (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds) [Salicylate-containing combinations]; constipation [Ibuprofen-containing combinations]; diarrhea (in overdose with Acetaminophen-containing combinations) [Ibuprofen-containing combinations].

BLADDER: cystitis or other lower urinary tract irritation (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate) [Ibuprofen-containing combinations]; polyuria (large increase in frequency and quantity of urination, sudden) [Ibuprofen-containing combinations]; urination, difficult or decreased.

KIDNEYS: colic, renal (with prolonged use of high doses in patients with severe renal function impairment) [Acetaminophen-containing combinations]; impairment or failure, renal (increased blood pressure; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sudden decrease in amount of urine; swelling of face, fingers, feet, and/or lower legs; thirst, continuing; unusual tiredness or weakness; weight gain) [Ibuprofen-containing combinations]; necrosis, tubular, renal, in overdosage (bloody or cloudy urine;

difficult or painful urination; sudden decrease in amount of urine) [Acetaminophen-containing combinations].

URINE: *bloody urine; cloudy urine; pyuria, sterile* (with prolonged use of high doses in patients with severe renal function impairment) [Acetaminophen-containing combinations]; *ketonuria* [Salicylate-containing combinations]; *proteinuria* [Salicylate-containing combinations].

RESPIRATION: *allergic reaction, bronchospastic* (shortness of breath, troubled breathing, tightness in chest, or wheezing) [Ibuprofen-containing combinations; Salicylate-containing combinations]; *breathing, fast or deep* (in children) [Salicylate-containing combinations]; *depression, respiratory* [Acetaminophen-containing combinations]; *shortness of breath; troubled breathing*.

CHEST: *allergic reaction, bronchospastic* (shortness of breath, troubled breathing, tightness in chest, or wheezing) [Ibuprofen-containing combinations; Salicylate-containing combinations]; *arrhythmias, cardiac* [Acetaminophen-containing combinations]; *congestive heart failure, or exacerbation of* (chest pain; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; decrease in amount of urine; swelling of face, fingers, feet, or lower legs; unusual tiredness; weight gain) [Ibuprofen-containing combinations]; *heartbeat, slow or irregular*.

EXTREMITIES: *swelling of feet, or lower legs*.

SLEEP: *drowsiness* [Salicylamide-containing combinations]; trouble in sleeping.

PERSPIRATION: sweating, increased [Acetaminophen-containing combinations].

SKIN: *allergic reaction* (skin rash, hives or itching); *erythema multiforme* (fever with or without chills; muscle cramps or pain; skin rash; sores, ulcers, or white spots on lips or in mouth) [Ibuprofen-containing combinations]; *purpura* [Ibuprofen-containing combinations].

GENERALITIES: *anaphylaxis* (bluish discoloration or flushing or redness of skin; coughing; difficulty in swallowing; severe dizziness or feeling faint; skin rash, hives [may include giant urticaria], and/or itching; stuffy nose; swelling of eyelids, face, or lips; tightness in chest, troubled breathing, and/or wheezing, especially in asthmatic patients) [Salicylate-containing combinations]; *retention, fluid* (increased blood pressure; decrease in amount of urine; swelling of face, fingers, feet, and/or lower legs; weight gain, rapid) [Ibuprofen-containing combinations]; *acidosis, metabolic* [Acetaminophen-containing combinations]; *agranulocytosis* (fever with or without chills; sores, ulcers, or white spots on lips or in mouth; sore throat) [Ibuprofen-containing combinations]; *anaphylaxis* (changes in facial skin color; skin rash, hives, and/or itching; fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing) (may include anaphylactic shock with sudden, severe decrease in blood pressure and collapse) [Ibuprofen-containing combinations]; *anemia* (unusual tiredness or weakness); *anemia, aplastic [pancytopenia]* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sores, ulcers, or white spots on lips or in mouth; swollen and/or painful glands; unusual bleeding or bruising; unusual tiredness or weakness) [Ibuprofen-containing combinations]; *anemia, hemolytic* (troubled breathing, exertional; unusual tiredness or weakness) [Ibuprofen-containing combinations]; *arrhythmias, cardiac* [Acetaminophen-containing combinations]; *azotemia* (with prolonged use of high doses in patients with severe renal

function impairment) [Acetaminophen-containing combinations]; *blood dyscrasias* (unexplained sore throat and fever; unusual bleeding or bruising) [Acetaminophen-containing combinations]; *blood pressure, increased* [Ibuprofen-containing combinations]; *coma* [Acetaminophen-containing combinations]; *convulsions* [Acetaminophen-containing combinations]; *encephalopathy, hepatic* (with mental changes, confusion, agitation, or stupor) [Acetaminophen-containing combinations]; *erythema multiforme* (fever with or without chills; muscle cramps or pain; skin rash; sores, ulcers, or white spots on lips or in mouth) [Ibuprofen-containing combinations]; *heartbeat, slow or irregular; hepatitis* (fever with or without chills, skin rash, swelling and/or tenderness in upper abdominal or stomach area, swollen and/or painful glands, unusual bleeding or bruising, unusual tiredness or weakness, yellow eyes or skin) [Acetaminophen-containing combinations; Ibuprofen-containing combinations]; *hypoglycemia* (in overdose with Salicylate-containing combinations (especially in children) [Acetaminophen-containing combinations]; *leukopenia [neutropenia]* (fever with or without chills, sore throat, unusual tiredness or weakness) [Ibuprofen-containing combinations]; *pancreatitis, acute* (abdominal pain, fever with or without chills, swelling and/or tenderness in upper abdominal or stomach area) [Ibuprofen-containing combinations]; *Stevens-Johnson syndrome* (bleeding or crusting sores on lips; chest pain; fever with or without chills; muscle cramps or pain; skin rash; sores, ulcers, or white spots in mouth; sore throat) [Ibuprofen-containing combinations]; *thrombocytopenia with or without purpura* (spitting blood, unusual bleeding or bruising) [Ibuprofen-containing combinations]; *tiredness, severe* (in children) [Salicylate-containing combinations]; *uremia* (with prolonged use of high doses in patients with severe renal function impairment) [Acetaminophen-containing combinations]; *weight gain, unusual*; acid-base balance, alterations in (especially respiratory alkalosis and metabolic acidosis) [Salicylate-containing combinations]; cns stimulation (hallucinations; seizures; trouble in sleeping); encephalographic abnormalities [Salicylate-containing combinations]; hyperglycemia [Salicylate-containing combinations]; hypertension (continuing headache; slow or fast heartbeat); hypokalemia [Salicylate-containing combinations]; salicylism, mild (any loss of hearing; confusion; severe or continuing diarrhea; dizziness or lightheadedness; severe drowsiness; fast or deep breathing; severe or continuing headache; increased sweating; continuing nausea or vomiting; continuing ringing or buzzing in ears; severe or continuing stomach pain; uncontrollable flapping movements of the hands, especially in elderly patients; unusual thirst; vision problems) [Salicylate-containing combinations]; salicylism, severe (bloody urine; convulsions; fever; hallucinations; shortness of breath or troubled breathing) [Salicylate-containing combinations]; seizures.

DIAGNOSTIC TESTS: *abnormalities in liver function tests* [Acetaminophen-containing combinations]; *acidosis, metabolic* [Acetaminophen-containing combinations]; *anemia* (unusual tiredness or weakness); *anemia, aplastic [pancytopenia]* [Ibuprofen-containing combinations]; *anemia, hemolytic* [Ibuprofen-containing combinations]; *bloody urine; cloudy urine; pyuria, sterile* (with prolonged use of high doses in patients with severe renal function impairment) [Acetaminophen-containing combinations]; *agranulocytosis; azotemia* [Acetaminophen-containing combinations]; *hypoglycemia* (in overdose with Salicylate-containing combinations (especially in children) [Acetaminophen-containing combinations]; *leukopenia [neutropenia]* [Ibuprofen-containing combinations]; *uremia* [Acetaminophen-containing combinations]; *hyperglycemia* [Salicylate-containing

combinations]; hypokalemia [Salicylate-containing combinations]; hyponatremia [Salicylate-containing combinations]; ketonuria [Salicylate-containing combinations]; proteinuria [Salicylate-containing combinations].

Secondary Actions or Rebound Effects: *headache, mild to moderate; coagulation defects* [Acetaminophen-containing combinations]; *coagulation, intravascular, disseminated* [Acetaminophen-containing combinations]; *collapse, cardiovascular* [Acetaminophen-containing combinations]; *stroke, increased risk of; rhinitis, allergic* (unexplained runny nose or sneezing).

Deferoxamine (Systemic)

Commercial name(s): *Desferal*.

Category: Chelating agent.

Conventional indications: Toxicity, iron, acute (treatment adjunct); Toxicity, iron, chronic (treatment); Toxicity, aluminum (treatment); Toxicity, aluminum (diagnosis).

Primary Actions or Pathogenetic Symptoms

EYE: toxicity, ocular (blurred vision; decreased acuity; impaired peripheral, color, and night vision; retinal pigmental abnormalities) (more frequent in younger patients); *cataracts* (on long-term therapy).

HEARING: neurotoxicity, auditory (hearing problems) (especially in younger patients); *loss, hearing, high-frequency*.

STOMACH: discomfort.

ABDOMEN: discomfort, abdominal.

RECTUM: diarrhea.

BLADDER: urination, difficult.

URINE: color change to orange-rose or “vin rosé” color.

RESPIRATION: respiratory distress syndrome (cyanosis; difficult or fast breathing) (with excessively high intravenous doses for more than 1 day).

CHEST: heartbeat, fast.

EXTREMITIES: cramps, leg.

FEVER: fever.

SKIN: allergic reaction (hives; itching; skin rash; wheezing); **hives; itching; skin rash**.

GENERALITIES: blood pressure, low; convulsions; flushing; heartbeat, fast; respiratory distress syndrome (cyanosis; difficult or fast breathing) (with excessively high intravenous doses for more than 1 day); **pain or swelling at site of injection**; *hypocalcemia* (abdominal and muscle cramps) (only when used for aluminum toxicity); *thrombocytopenia* (unusual bleeding or bruising); *mucormycosis* (in patients receiving deferoxamine while undergoing hemodialysis); *susceptibility of patients to Yersinia enterocolitica, enhanced*.

DIAGNOSTIC TESTS: hypocalcemia; thrombocytopenia; color change to orange-rose or “vin rosé” color.

Delavirdine (Systemic)

Commercial name(s): *Rescriptor*.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus (HIV) infection (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety** (fear; nervousness); **depressive symptoms** (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping).

HEAD: **headache**.

EYE: *conjunctivitis*.

NOSE: **sinusitis** (pain or tenderness around eyes and cheekbones; fever stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

MOUTH: *lesions, oral*.

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: **nausea; vomiting**.

ABDOMEN: *pain, abdominal, generalized; failure, hepatic* (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools yellow eyes or skin).

RECTUM: **diarrhea**.

KIDNEYS: *failure, kidney, acute* (agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness).

RESPIRATION: **bronchitis** (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); **infection, upper respiratory** (ear congestion; nasal congestion; chills; cough; fever; sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *dyspnea* (difficulty in breathing).

CHEST: **bronchitis** (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *enlargement, breast*.

EXTREMITIES: *aches, muscle or joint; rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness).

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep).

FEVER: *fever*.

SKIN: **skin rash, severe, with itching** (mainly on the upper body and proximal arms, with decreasing intensity of the lesions on the neck and face, and progressively less on the rest of the trunk and limbs); *erythema multiforme* (severe skin rash or skin rash accompanied by symptoms such as fever, blistering, oral lesions, conjunctivitis, swelling, muscle aches, or joint aches); *blistering*.

GENERALITIES: **asthenia** (lack or loss of strength); **depressive symptoms** (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); **fatigue** (unusual tiredness or weakness); **flu syndrome** (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **infection, upper respiratory** (ear congestion; nasal congestion; chills; cough; fever; sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **pain, localized; sinusitis** (pain or tenderness around eyes and cheekbones; fever stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); **erythema multiforme or Stevens-Johnson syndrome** (severe skin rash or skin rash accompanied by symptoms such as fever, blistering, oral lesions, conjunctivitis, swelling, muscle aches, or joint aches); **anemia, hemolytic** (back, leg, or stomach pains; bleeding gums; chills; dark urine; difficulty breathing; fatigue; fever; general body swelling; headache; loss of appetite; nausea or vomiting; nosebleeds; pale skin; sore throat; yellowing of the eyes or skin); **Cushing's syndrome** (redistribution or accumulation of body fat, including central obesity, dorsocervical fat enlargement (buffalo hump), peripheral wasting, breast enlargement, and "cushingoid appearance"); **failure, hepatic** (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools yellow eyes or skin); **obesity, central; rhabdomyolysis** (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); **swelling**.

DIAGNOSTIC TESTS: **anemia, hemolytic**.

Denileukin Diftitox (Systemic)

Commercial name(s): *Ontak*.

Category: Antineoplastic.

Conventional indications: Lymphomas, cutaneous T-cell (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: confusion.

HEAD: headache.

NOSE: rhinitis (runny nose).

THROAT: **dysphagia** (difficulty swallowing); **pharyngitis** (sore throat).

EXTERNAL THROAT: *hyperthyroidism* (increased heart rate); *hypothyroidism* (loss of appetite; weight gain; dry, puffy skin; tiredness).

STOMACH: **anorexia** (loss of appetite); **nausea; vomiting; dyspepsia** (indigestion).

ABDOMEN: *pancreatitis* (nausea; severe abdominal or stomach pain; vomiting).

RECTUM: **diarrhea; constipation**.

KIDNEYS: *insufficiency, renal, acute* (decreased urination; loss of appetite; nausea; unusual tiredness).

URINE: albuminuria (cloudy urine); hematuria (blood in urine); pyuria (cloudy urine).

RESPIRATION: **dyspnea** (shortness of breath).

COUGH: cough.

CHEST: pain, chest; **tachycardia** (fast or irregular heartbeat); embolism, pulmonary (shortness of breath, sudden, unexplained; pain in chest).

BACK: pain.

EXTREMITIES: **arthralgia** (pain in joints); **myalgia** (pain in muscles).

SLEEP: insomnia (trouble in sleeping).

CHILL: chills.

FEVER: fever.

SKIN: **rash** (macropapular, petechial, vesicular bullous, urticarial, and/or eczematous); **vasodilation** (warmth and flushing of skin).

GENERALITIES: **anemia** (unusual tiredness or weakness); **arthralgia** (pain in joints); **asthenia** (loss of strength or energy); **flu-like syndrome**; **hypersensitivity reaction, acute**; **hypotension** (dizziness or faintness); **infection**; **myalgia** (pain in muscles); **tachycardia** (fast or irregular heartbeat); **vasodilation** (warmth and flushing of skin); **vascular leak syndrome** (flushing of the skin; dizziness or faintness; swelling of face, feet, or lower legs); injection site reaction (burning; itching; redness or swelling at place of injection); leukopenia (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); paresthesia (numbness or tingling of fingers, toes, or face); thrombocytopenia (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); thrombophlebitis (redness; swelling or pain at injection site); thrombotic events, including deep vein thrombosis (abdominal pain, sudden, severe, or continuing; coughing up blood; headache, severe or sudden; loss of coordination, sudden; pains in groin, or leg, especially calf of leg; slurring of speech, sudden; vision changes, sudden; weakness, numbness, or pain in arm or leg, unexplained); hyperthyroidism (increased heart rate); hypothyroidism (loss of appetite; weight gain; dry, puffy skin; tiredness); pancreatitis (nausea; severe abdominal or stomach pain; vomiting).

DIAGNOSTIC TESTS: **anemia**; albuminuria; hematuria; leukopenia; pyuria; thrombocytopenia.

Desflurane (Inhalation-Systemic)

Commercial name(s): *Suprane*.

Category: Anesthetic (general).

Conventional indications: Anesthesia, general.

Primary Actions or Pathogenetic Symptoms

MIND: **anesthesia** (unconsciousness); **excitement/struggling** (during induction by mask, in adults); agitation (nervousness or restlessness) (during maintenance or recovery, in adult and pediatric patients).

VERTIGO: dizziness (during maintenance or recovery, in adult and pediatric patients).

HEAD: headache (during maintenance or recovery, in adult and pediatric patients).

EYE: conjunctivitis (red or irritated eyes) (during maintenance or recovery, in adult and pediatric patients); hyperemia, conjunctival (red or irritated eyes) (during maintenance or recovery, in adult and pediatric patients).

MOUTH: *salivation, excessive* (during maintenance or recovery, in adult and pediatric patients).

THROAT: **pharyngitis** (during induction by mask, in adults); *sore throat* (during maintenance or recovery, in adult and pediatric patients).

STOMACH: **nausea** (during maintenance or recovery, in adult and pediatric patients); **vomiting** (during maintenance or recovery, in adult and pediatric patients).

LARYNX AND TRACHEA: **laryngospasm** (during induction by mask in adults, and during maintenance or recovery, in adult and pediatric patients).

RESPIRATION: **apnea** (during induction by mask in adults, and during maintenance or recovery, in adult and pediatric patients); **breath-holding** (during induction by mask, in adults) (less frequently during maintenance or recovery, in adult and pediatric patients); **desaturation, oxyhemoglobin** (during induction by mask, in adults); **laryngospasm** (during induction by mask in adults, and during maintenance or recovery, in adult and pediatric patients); *asthma* (less frequently during maintenance or recovery, in adult and pediatric patients); *dyspnea* (less frequently during maintenance or recovery, in adult and pediatric patients); *hypoxia* (during maintenance or recovery, in adult and pediatric patients); depression, respiratory.

COUGH: **coughing** (during induction by mask, in adults, and during maintenance or recovery, in adult and pediatric patients).

CHEST: *arrhythmia, nodal* (during maintenance or recovery, in adult and pediatric patients); *bradycardia* (during maintenance or recovery, in adult and pediatric patients); *tachycardia* (during maintenance or recovery, in adult and pediatric patients); *abnormalities, bigeminy and other cardiographic* (during maintenance or recovery, in adult and pediatric patients); *infarction, myocardial; ischemia, myocardial* (during maintenance or recovery, in adult and pediatric patients).

EXTREMITIES: *myalgia*.

FEVER: *fever; hyperthermia, malignant* (in genetically susceptible swine).

PERSPIRATION: *odor, strong or disagreeable*.

SKIN: *pruritus*.

GENERALITIES: **anesthesia; desaturation, oxyhemoglobin** (during induction by mask, in adults); **secretions, increased** (during induction by mask, in adults); *arrhythmia, nodal* (during maintenance or recovery, in adult and pediatric patients); *bradycardia* (during maintenance or recovery, in adult and pediatric patients); *hypertension* (during maintenance or recovery, in adult and pediatric patients); *tachycardia* (during maintenance or recovery, in adult and pediatric patients); *hemorrhage; hyperthermia, malignant* (in genetically susceptible swine); *hypoxia* (during maintenance or recovery, in adult and pediatric patients); *infarction, myocardial; ischemia, myocardial* (during maintenance or recovery, in adult and pediatric patients); *myalgia*; depression, circulatory; hypotension, severe.

DIAGNOSTIC TESTS: **desaturation, oxyhemoglobin** (during induction by mask, in adults); *abnormalities, bigeminy and other cardiographic; hypoxia* (during maintenance or recovery, in adult and pediatric patients).

Desloratadine (Systemic)

Commercial name(s): *Aerius; Clarinex; Clarinex RediTabs.*

Category: Antihistaminic (H₁-receptor).

Conventional indications: Rhinitis, allergic (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: headache.

MOUTH: *dryness.*

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); *nausea.*

GENITALIA FEMALE: *dysmenorrhea* (difficult or painful menstruation).

RESPIRATION: *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: *tachycardia* (fast, pounding, or irregular heartbeat or pulse); heart rate of 9.2 bpm, mean, increase in, relative to placebo; QT interval, mean increase of 8.1 msec, using the QT_c (Bazett) and mean increase of 0.4 msec, using QT_c (Fredericia), relative to placebo.

EXTREMITIES: *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving).

SLEEP: *somnolence* (sleepiness or unusual drowsiness).

SKIN: *pruritus* (itching skin); *rash*; *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *fatigue* (unusual tiredness or weakness); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *anaphylaxis* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *edema* (swelling); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); death (in rats at oral doses of 250 mg/kg or greater, 353 mg/kg in mice); heart rate of 9.2 bpm, mean, increase in, relative to placebo; QT interval, mean increase of 8.1 msec, using the QT_c (Bazett) and mean increase of 0.4 msec, using QT_c (Fredericia), relative to placebo.

DIAGNOSTIC TESTS: QT interval, mean increase of 8.1 msec, using the QT_c (Bazett) and mean increase of 0.4 msec, using QT_c (Fredericia), relative to placebo.

Desloratadine and Pseudoephedrine (Systemic)

Commercial name(s): *Clarinex-D.*

Category: Antihistaminic (H₁-receptor)-decongestant.

Conventional indications: Rhinitis, seasonal allergic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *hyperactivity* (restlessness; trouble sitting still); *nervousness.*

VERTIGO: *dizziness*.

HEAD: headache.

MOUTH: dryness.

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: *anorexia* (loss of appetite; weight loss); *nausea*.

ABDOMEN: *bilirubin, elevated liver enzymes, including* (chills; clay-colored stools ; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain area; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin).

RESPIRATION: *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: *palpitations* (irregular heartbeat); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); heart rate, increased.

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep); *somnolence* (sleepiness or unusual drowsiness).

SKIN: *pruritus* (itching skin), *rash*; *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *fatigue* (unusual tiredness or weakness); *anaphylaxis* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *bilirubin, elevated liver enzymes, including* (chills; clay-colored stools ; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain area; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *edema* (swelling); *hepatitis* (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); *hypersensitivity reactions*; *palpitations* (irregular heartbeat); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); heart rate, increased.

DIAGNOSTIC TESTS: *bilirubin, elevated liver enzymes, including*.

Desmopressin (Systemic)

Commercial name(s): *DDAVP Injection; DDAVP Nasal Spray; DDAVP Rhinal Tube; DDAVP Rhinyle Nasal Solution; DDAVP Spray; DDAVP Tablets; Octostim; Stimate Nasal Spray*.

Category: Antidiuretic (central diabetes insipidus) [Desmopressin Acetate Nasal Solution; Desmopressin Acetate Tablets; Desmopressin Acetate Injection]; Antidiuretic (primary nocturnal enuresis) [Desmopressin Acetate Nasal Solution; Desmopressin Acetate Tablets]; Antihemorrhagic [Desmopressin Acetate Nasal Solution (*Stimate* only); Desmopressin Acetate Injection]; Diagnostic aid [Desmopressin Acetate Injection].

Conventional indications: Diabetes insipidus, central (prophylaxis or treatment) ; Enuresis, primary nocturnal (treatment) [Desmopressin nasal solution, as a nasal spray and

for use with a rhinal tube, and tablets]; Hemophilia A (treatment) or von Willebrand's disease (treatment) [Desmopressin injection and *Stimate* nasal solution]; Uremia (treatment adjunct) [Desmopressin injection]; Cushing's syndrome, adrenocorticotrophic hormone (ACTH)-dependent (diagnosis).

Primary Actions or Pathogenetic Symptoms

HEAD: headache (with high doses); stroke.

NOSE: epistaxis (nosebleed) (with intranasal use); runny or stuffy nose (with intranasal use).

STOMACH: cramps; nausea (with high doses).

ABDOMEN: cramps, abdominal.

BLADDER: retention, urine.

KIDNEYS: suppression, urine.

GENITALIA FEMALE: pain in vulva.

RESPIRATION: infection, upper respiratory (cough; fever; runny or stuffy nose; sneezing; sore throat) (with intranasal use).

CHEST: infarction, myocardial; tachycardia (fast heartbeat).

SKIN: flushing; redness.

GENERALITIES: coagulation; flushing of skin; infection, upper respiratory (cough; fever; runny or stuffy nose; sneezing; sore throat) (with intranasal use); pain, redness, or swelling at site of injection (with intravenous use); allergic reaction, severe (chills; fever; shortness of breath, tightness in chest, trouble in breathing, or wheezing; skin rash, hives, or itching); hypertension, slight; hyponatremia; hypotension, transient; infarction, myocardial; water intoxication (coma; confusion; continuing headache; decreased urination; drowsiness; rapid weight gain; seizures); tachycardia (fast heartbeat).

DIAGNOSTIC TESTS: hyponatremia.

Dexmedetomidine (Systemic)

Commercial name(s): *Precedex*.

Category: Sedative-hypnotic.

Conventional indications: Sedation.

Primary Actions or Pathogenetic Symptoms

MIND: peacefulness (serenity, calm); speech disorder; agitation; confusion; delirium; hallucination; illusion.

VERTIGO: dizziness.

HEAD: headache.

MOUTH: speech disorder.

STOMACH: nausea; thirst; vomiting.

ABDOMEN: pain, abdominal.

BLADDER: oliguria (decrease in amount of urine).

RESPIRATION: hypoxia (bluish lips or skin); apnea (bluish lips or skin; difficulty in breathing); bronchospasm (cough; difficulty breathing; noisy breathing; shortness of

breath; tightness in chest; wheezing); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); *hypoventilation* (extremely shallow or slow breathing).

CHEST: bradycardia (slow or irregular heartbeat (less than 50 beats per minute); lightheadedness, dizziness or fainting; unusual tiredness); **fibrillation, atrial** (fast or irregular heartbeat; dizziness; fainting); *edema, pulmonary* (chest pain; difficult, fast, noisy breathing, sometimes with wheezing; blue lips and fingernails pale skin; increased sweating; coughing; shortness of breath); *effusion, pleural* (chest pain; shortness of breath); *arrest, cardiac* (chest pain); *arrhythmia, ventricular* (fast slow or irregular heartbeat; dizziness; fainting); *block, atrioventricular* (chest pain; dizziness; fainting; pounding, slow heartbeat; troubled breathing; unusual tiredness or weakness); *block, heart; bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *congestion, pulmonary* (coughing; troubled breathing; wheezing); *extrasystole; tachycardia, supraventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *tachycardia, ventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); block, AV, first degree; block, heart, second degree.

EXTREMITIES: *neuralgia; neuritis.*

SLEEP: *somnolence.*

GENERALITIES: bradycardia (slow or irregular heartbeat (less than 50 beats per minute); lightheadedness, dizziness or fainting; unusual tiredness); **fibrillation, atrial** (fast or irregular heartbeat; dizziness; fainting); **hypotension** (blurred vision; confusion ; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position; sweating; unusual tiredness or weakness); **hypoxia** (bluish lips or skin); *anemia* (pale skin; troubled breathing, exertional; unusual tiredness or weakness); *infection; leukocytosis; neuralgia; neuritis; pain; acidosis, respiratory; arrhythmia, ventricular* (fast slow or irregular heartbeat; dizziness; fainting); *block, atrioventricular* (chest pain; dizziness; fainting; pounding, slow heartbeat; troubled breathing; unusual tiredness or weakness); *extrasystole; fluctuations, blood pressure; hypertension, aggravated; tachycardia, supraventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *T wave inversion*; block, AV, first degree; block, heart, second degree.

DIAGNOSTIC TESTS: fibrillation, atrial; hypoxia; anemia; acidosis, respiratory; alkaline phosphatase, increased; arrhythmia, ventricular; block, atrioventricular; hypercapnia; hyperkalemia; T wave inversion; tachycardia, supraventricular; block, AV, first degree; block, heart, second degree.

Dexmethylphenidate (Systemic)

Commercial name(s): *Focalin; Focalin XR.*

Category: CNS stimulant.

Conventional indications: Attention-deficit hyperactivity disorder (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: anxiety (fear, nervousness); agitation (anxiety, nervousness, restlessness, irritability, dry mouth, shortness of breath, hyperventilation, trouble sleeping, irregular

heartbeats, shaking); coma (change in consciousness, loss of consciousness); confusion (mood or mental changes); delirium (unusual excitement; nervousness or restlessness; hallucinations; confusion as to time, place, or person; holding false beliefs that cannot be changed by fact); euphoria (false or unusual sense of well-being); hallucinations (seeing, hearing, or feeling things that are not there).

HEAD: **headache** (pain in one or more areas of the head).

EYE: mydriasis (bigger, dilated, or enlarged pupils [black part of eye]; increased sensitivity of eyes to light).

VISION: *disturbance, visual* (blurred vision; change in near or distance vision; difficulty in focusing eyes).

FACE: flushing (feeling of warmth; redness of the face).

MOUTH: dryness.

THROAT: **pain, pharyngolaryngeal** (throat pain).

EXTERNAL THROAT: flushing (feeling of warmth; redness of the neck).

STOMACH: **anorexia** (loss of appetite, weight loss) (more frequent with children); **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); **pain, abdominal** (stomach pain) (more frequent with children); **nausea**; vomiting.

ABDOMEN: **pain, abdominal** (stomach pain) (more frequent with children).

LARYNX AND TRACHEA: **pain, pharyngolaryngeal** (throat pain).

RESPIRATION: **hyperventilation** (respiration, accelerated).

CHEST: *tachycardia* (fast, pounding, or irregular heartbeat or pulse) (more frequent with children); arrhythmias, cardiac (chest pain or discomfort, dizziness; fainting; fast, slow, or irregular heartbeat; lightheadedness; pounding or rapid pulse); flushing (feeling of warmth; redness of the upper chest); palpitations (fast, irregular, pounding, or racing heartbeat or pulse).

EXTREMITIES: *twitching* (motor or vocal tics); flushing (feeling of warmth; redness of the arms); hyperreflexia (overactive reflexes); twitching, muscle.

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep) (more frequent with children).

FEVER: *fever*; hyperpyrexia (fever).

PERSPIRATION: sweating.

GENERALITIES: *tachycardia* (fast, pounding, or irregular heartbeat or pulse) (more frequent with children); *twitching* (motor or vocal tics); *seizures* (convulsions, muscle spasm or jerking of all extremities, sudden loss of consciousness); arrhythmias, cardiac (chest pain or discomfort, dizziness; fainting; fast, slow, or irregular heartbeat; lightheadedness; pounding or rapid pulse); coma (change in consciousness, loss of consciousness); convulsions (seizures); dryness of mucous membranes; flushing (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest); hyperreflexia (overactive reflexes); hypertension (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); palpitations (fast, irregular, pounding, or racing heartbeat or pulse); tremors (shakiness); twitching, muscle.

Dexrazoxane (Systemic)

Commercial name(s): *Zinecard*.

Category: Chelating agent.

Conventional indications: Cardiomyopathy (prophylaxis).

Primary Actions or Pathogenetic Symptoms

GENERALITIES: *pain at injection site; leukopenia; thrombocytopenia.*

DIAGNOSTIC TESTS: *leukopenia; thrombocytopenia.*

Dextromethorphan (Systemic)

Commercial name(s): *Balminil DM; Balminil DM Children; Benylin Adult Formula Cough Suppressant; Benylin DM; Benylin DM 12 Hour; Benylin DM For Children 12 Hour; Benylin DM for children; Benylin Pediatric Cough Suppressant; Broncho-Grippol-DM; Calmylin #1; Cough-X; Creo-Terpin; Delsym; Delsym Cough Formula; Diabe-TUSS DM Syrup; Hold DM; Koffex DM; Novahistex DM; Novahistine DM; Pertussin CS Children's Strength; Pertussin DM Extra Strength; Robitussin Maximum Strength Cough Suppressant; Robitussin Pediatric; Robitussin Pediatric Cough Suppressant; Sucrets 4 Hour Cough Suppressant; Triaminic DM Long Lasting For Children; Trocal; Vicks 44 Cough Relief.*

Category: Antitussive.

Conventional indications: Cough (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; psychosis, toxic* (hyperactivity, visual and auditory hallucinations) (after ingestion of 300 mg or more); coma; excitement, irritability, nervousness, or restlessness, severe unusual.

VERTIGO: *dizziness, mild.*

HEAD: *headache.*

VISION: vision, blurred.

STOMACH: *nausea; pain; vomiting.*

RECTUM: *constipation.*

BLADDER: retention, urinary (difficulty in urination).

RESPIRATION: depression, respiratory (slowed breathing).

EXTREMITIES: ataxia (shakiness and unsteady walk).

SLEEP: *drowsiness, mild.*

GENERALITIES: *dependence* (especially following prolonged use of high doses); coma.

Diatrizoate and Iodipamide (Local)

Commercial name(s): *Sinografin.*

Category: Diagnostic aid, radiopaque (uterus and fallopian tube disorders; sexual anomalies).

Conventional indications: Hysterosalpingography; Sexual anomalies, congenital (diagnosis).

Primary Actions or Pathogenetic Symptoms

STOMACH: discomfort; pain; *nausea; vomiting.*

ABDOMEN: discomfort, abdominal; pain, abdominal.

CHILL: *chills.*

FEVER: *fever.*

GENERALITIES: *anaphylactic reactions; collapse, circulatory; pseudo-allergic reaction* (increased sweating, skin rash or hives, sneezing, swelling of face or skin, swelling of the larynx, wheezing, tightness in chest, or troubled breathing).

Diatrizoates (Local)

Commercial name(s): *Cystografin; Cystografin Dilute; Hypaque Sodium 20%; Hypaque Sodium 50%; Hypaque-Cysto; Hypaque-M 18%; Hypaque-M 30%; Hypaque-M 60%; Reno-M-30; Urovist Cysto; Urovist Cysto Pediatric; Urovist Sodium 300.*

Category: Diagnostic aid, radiopaque (urinary tract disorders) [Diatrizoate Meglumine Injection; Diatrizoate Sodium Injection]; Diagnostic aid, radiopaque (uterus and fallopian tube disorders) [Diatrizoate Meglumine Injection; Diatrizoate Sodium Injection].

Conventional indications: Cystourethrography, retrograde [Diatrizoate meglumine]; Pyelography, retrograde [Diatrizoate meglumine and diatrizoate sodium solutions]; Hysterosalpingography [Diatrizoate meglumine and diatrizoate sodium].

Primary Actions or Pathogenetic Symptoms

STOMACH: discomfort; pain; *nausea; vomiting.*

ABDOMEN: discomfort, abdominal; pain, abdominal.

BLADDER: *injury* (associated with the mechanics of retrograde genitourinary procedures).

KIDNEYS: *distention, pyelorenal* (severe abdominal or stomach pain and discomfort, backache) (resulting from the instillation of an excess volume of contrast solution; renal colic and shock may follow); *colic, renal; injury to the ureters* (associated with the mechanics of retrograde genitourinary procedures).

URETHRA: *injury* (associated with the mechanics of retrograde genitourinary procedures).

CHILL: *chills.*

FEVER: *fever.*

GENERALITIES: *infection, introduction of* (associated with the mechanics of retrograde genitourinary procedures); *pseudo-allergic reaction* (continuing chills, continuing fever, increased sweating, skin rash or hives, sneezing, swelling of face or skin, swelling of larynx, wheezing, tightness in chest, or troubled breathing) (may be due to entry of medium into venous or lymphatic system); *shock.*

Diatrizoates (Systemic)

Commercial name(s): *Angiovist 282; Angiovist 292; Angiovist 370; Gastrografin; Hypaque Meglumine 30%; Hypaque Meglumine 60%; Hypaque Oral; Hypaque Sodium 25%; Hypaque Sodium 50%; Hypaque Sodium Oral Powder; Hypaque Sodium Oral Solution; Hypaque-76; Hypaque-M 18%; Hypaque-M 30%; Hypaque-M 60%; Hypaque-M 75%; Hypaque-M 76%; MD-76; MD-Gastroview; Reno-Dip; Reno-M-60; Renografin-60; Renografin-76; Renovist; Renovist II; Urovist Meglumine DIU/CT; Urovist Sodium 300.*

Category: Diagnostic aid, radiopaque (cardiac disease) [Diatrizoate Meglumine Injection; Diatrizoate Meglumine and Diatrizoate Sodium Injection]; Diagnostic aid, radiopaque (vascular disease) [Diatrizoate Meglumine Injection; Diatrizoate Meglumine and Diatrizoate Sodium Injection; Diatrizoate Sodium Injection]; Diagnostic aid, radiopaque (joint disease) [Diatrizoate Meglumine Injection]; Diagnostic aid, radiopaque (biliary tract disorders) [Diatrizoate Meglumine Injection; Diatrizoate Meglumine and Diatrizoate Sodium Injection; Diatrizoate Sodium Injection]; Diagnostic aid, radiopaque (brain disorders) [Diatrizoate Meglumine Injection; Diatrizoate Meglumine and Diatrizoate Sodium Injection; Diatrizoate Sodium Injection]; Diagnostic aid, radiopaque (disk disease) [Diatrizoate Meglumine Injection]; Diagnostic aid, radiopaque (gastrointestinal disorders) [Diatrizoate Meglumine and Diatrizoate Sodium Solution; Diatrizoate Sodium Solution; Diatrizoate Sodium for Solution]; Diagnostic aid, radiopaque (splenic and portal vein disorders) [Diatrizoate Meglumine Injection; Diatrizoate Meglumine and Diatrizoate Sodium Injection; Diatrizoate Sodium Injection]; Diagnostic aid, radiopaque (urinary tract disorders) [Diatrizoate Meglumine Injection; Diatrizoate Meglumine and Diatrizoate Sodium Injection; Diatrizoate Sodium Injection]; Diagnostic aid, radiopaque contrast enhancer in computed tomography [Diatrizoate Meglumine Injection; Diatrizoate Meglumine and Diatrizoate Sodium Injection; Diatrizoate Sodium Injection]; Diagnostic aid, radiopaque contrast enhancer adjunct in computed tomography [Diatrizoate Meglumine and Diatrizoate Sodium Solution]; Diagnostic aid, radiopaque (pregnancy disorders) [Diatrizoate Meglumine Injection]; Osmotic agent (meconium ileus) [Diatrizoate Meglumine and Diatrizoate Sodium Solution; Diatrizoate Sodium Solution].

Conventional indications: *Oral/Rectal:* Radiography, gastrointestinal [Oral or rectal diatrizoate sodium, and diatrizoate meglumine and diatrizoate sodium combination solutions]; Body imaging, computed tomographic, adjunct [Oral diatrizoate meglumine and diatrizoate sodium combination solution]; Meconium ileus (treatment) [Rectal diatrizoate sodium, and diatrizoate meglumine and diatrizoate sodium combination solutions]. *Intravascular:* Angiocardiology [Parenteral diatrizoate meglumine and diatrizoate sodium combination]; Angiography, Aortography, Arteriography or Venography [Parenteral diatrizoates]; Cholangiography, direct, operative [Parenteral diatrizoate meglumine, diatrizoate meglumine and diatrizoate sodium combination, and diatrizoate sodium]; Cholangiography, direct, postoperative T-tube [Parenteral diatrizoate meglumine, diatrizoate meglumine and diatrizoate sodium combination, and diatrizoate sodium]; Cholangiography, percutaneous transhepatic [Parenteral diatrizoate meglumine, diatrizoate meglumine and diatrizoate sodium combination, and diatrizoate sodium]; Brain imaging, computed tomographic [Parenteral diatrizoate meglumine, diatrizoate meglumine and diatrizoate sodium combination, and diatrizoate sodium]; Body imaging, computed tomographic [Parenteral diatrizoate meglumine and the diatrizoate meglumine and diatrizoate sodium combination]; Splenoportography [Parenteral diatrizoate meglumine,

diatrizoate meglumine and diatrizoate sodium combination, and diatrizoate sodium]; Urography, excretory [Parenteral diatrizoate meglumine, diatrizoate meglumine and diatrizoate sodium combination, and diatrizoate sodium]; Urography, retrograde [Parenteral diatrizoate meglumine and parenteral diatrizoate sodium]; Nephrotomography [Parenteral diatrizoate meglumine and diatrizoate sodium combination]; Amniography [Parenteral diatrizoate meglumine]. *Intrasynovial*: Arthrography [Parenteral diatrizoate meglumine]. *Intradiskal*: Diskography [Parenteral diatrizoate meglumine].

Primary Actions or Pathogenetic Symptoms

MIND: *consciousness, loss of* (during or a few minutes after intravascular administration).

HEAD: *stroke* (during angiographic procedures with ionic contrast media).

VISION: *blindness, cortical* (after cardiac angiography).

KIDNEYS: *failure, renal, acute* (following intravascular administration); *function, renal, impaired, slightly and temporarily* (following intravascular administration).

LARYNX AND TRACHEA: *swelling of the larynx* (with intravascular administration).

RESPIRATION: *bronchospasm* (severe wheezing or troubled breathing) (with intravascular administration); *arrest, respiratory*.

COUGH: *cough* (during right ventricular and pulmonary angiography) (with intravascular administration).

CHEST: *bradycardia* (with intravascular administration); *bronchospasm* (severe wheezing or troubled breathing) (with intravascular administration); *edema, pulmonary* (severe wheezing or troubled breathing) (with intravascular administration); *fibrillation, ventricular* (irregular heartbeat) (with intravascular administration); *arrest, cardiac* (during or a few minutes after intravascular administration); *congestive heart failure, severe* (in patients who have had multiple contrast studies within 72 hours, those receiving large volumes of contrast agent, and those with elevated uric acid levels); *infarction, myocardial* (during angiographic procedures with ionic contrast media).

EXTREMITIES: **pain, joint, or exacerbation of existing pain** (with intrasynovial administration).

SKIN: *necrosis* (following extravasation of diatrizoates injection).

GENERALITIES: **pain at injection site** (with intradiskal administration); **pain, joint, or exacerbation of existing pain** (with intrasynovial administration); **vasodilation, arteriolar** (pain or burning at injection site, unusual warmth and flushing of skin) (with intravascular administration); *bradycardia* (with intravascular administration); *convulsions* (with intravascular administration); *hyperosmotic effect* (diarrhea or laxative effect, nausea or vomiting) (with oral or rectal administration); *hypotension* (slow heartbeat; severe tiredness or weakness) (with intravascular administration); *pseudo-allergic reaction* (skin rash or hives, stuffy nose, swelling of face or skin, thickening of tongue, wheezing, tightness in chest, or troubled breathing); *psychosomatic reaction* (chills, dizziness or lightheadedness, headache, nausea or vomiting, sweating, unusual thirst); *anaphylactoid reaction; collapse, vasomotor; death* (with inadvertent subarachnoid injection, especially during aortography by the translumbar technique); *dehydration* (by the hypertonic contrast solutions); *infarction, myocardial* (during angiographic procedures with ionic contrast media); *shock* (during or a few minutes after intravascular administration)

Diazoxide (Oral-Systemic)

Commercial name(s): *Proglycem*.

Category: Antihypoglycemic.

Conventional indications: Hypoglycemia (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *hypertrichosis* (increased hair growth on forehead) (with long term use); *ischemic attacks, cerebral, focal, transient* (confusion; numbness of the hands).

MOUTH: *taste, changes in ability to*.

STOMACH: *appetite, loss of; nausea; pain; vomiting*.

ABDOMEN: *ileus* (constipation).

RECTUM: *ileus* (constipation).

CHEST: *tachycardia* (fast heartbeat); *angina pectoris* (chest pain; unexplained shortness of breath); *congestive heart failure; infarction, myocardial* (chest pain; unexplained shortness of breath); *ischemia, myocardial* (chest pain; unexplained shortness of breath).

BACK: *hypertrichosis* (increased hair growth on back) (with long term use).

EXTREMITIES: **edema** (swelling of feet or lower legs); *hypertrichosis* (increased hair growth on arms, and legs) (with long term use).

SKIN: *hypertrichosis* (increased hair growth on forehead, back, arms, and legs) (with long term use).

GENERALITIES: *hyperglycemia; edema* (decreased urination; rapid weight gain; swelling of feet or lower legs); *hypertrichosis* (increased hair growth on forehead, back, arms, and legs) (with long term use); *tachycardia* (fast heartbeat); *allergic reaction* (fever; skin rash); *extrapyramidal effects* (stiffness of limbs; trembling and shaking of hands and fingers) (with long term use); *infarction, myocardial* (chest pain; unexplained shortness of breath); *ischemia, myocardial* (chest pain; unexplained shortness of breath); *thrombocytopenia* (unusual bleeding or bruising); ketoacidosis (continuing loss of appetite; drowsiness; flushed, dry skin; fruit-like breath odor; increased urination; unusual thirst).

DIAGNOSTIC TESTS: *hyperglycemia; thrombocytopenia; ketoacidosis*.

Diazoxide (Parenteral-Systemic)

Commercial name(s): *Hyperstat*.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *coma*.

VERTIGO: *hypotension, orthostatic* (dizziness or lightheadedness, especially when getting up from a lying or sitting position).

HEAD: *ischemia, cerebral* (confusion).

HEARING: *ringing in ears* (with intravenous use).

MOUTH: *taste, changes in ability to*.

STOMACH: *appetite, loss of; nausea; pain; vomiting.*

RECTUM: *constipation.*

BLADDER: **retention, sodium and water** (decrease in urination) (most commonly in young infants and adults after repeated injections).

URINE: **retention, sodium and water** (decrease in urination) (most commonly in young infants and adults after repeated injections).

CHEST: *tachycardia* (fast heartbeat); *angina pectoris* (chest pain); *congestive heart failure* (in susceptible patients); *infarction, myocardial* (chest pain); *ischemia, myocardial* (chest pain).

BACK: *pain* (with intravenous use).

EXTREMITIES: **edema** (swelling of hands, feet, or lower legs); *thrombosis* (numbness of hands).

GENERALITIES: *hypotension*; *hyperglycemia* (drowsiness; fruit-like breath odor; increased urination; unusual thirst); *tachycardia* (fast heartbeat); *vasodilation* (flushing or redness of face; headache; weakness) (with intravenous use); *warmth or pain along injected vein* (with intravenous use); *allergic reaction* (fever; skin rash; unusual bleeding or bruising); *coma, hyperosmolar* (confusion); *hypotension, orthostatic* (dizziness or lightheadedness, especially when getting up from a lying or sitting position); *infarction, myocardial* (chest pain); *ischemia, myocardial* (chest pain); *ketoacidosis*; *thrombocytopenia* (fever; skin rash; unusual bleeding or bruising); *thrombosis* (numbness of hands).

DIAGNOSTIC TESTS: *hyperglycemia; thrombocytopenia; ketoacidosis.*

Diclofenac (Topical)

Commercial name(s): *Solaraze.*

Category: Antineoplastic (topical).

Conventional indications: Actinic keratoses (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *alopecia* (loss or thinning of hair); *headache; migraine.*

EYE: *conjunctivitis* (dry, itching, or burning eyes; redness or swelling of eyes; increased sensitivity of eyes to light); *pain.*

NOSE: *rhinitis* (runny nose); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; headache; nasal congestion).

FACE: *acne.*

THROAT: *pharyngitis* (sore throat; fever).

EXTERNAL THROAT: *pain, neck.*

STOMACH: *dyspepsia* (belching; heartburn; indigestion; stomach upset or pain).

ABDOMEN: *pain, abdominal.*

RECTUM: *diarrhea.*

URINE: *hematuria* (blood in the urine).

RESPIRATION: *asthma* (shortness of breath; troubled breathing; tightness in chest; wheezing); *dyspnea* (shortness of breath); *pneumonia* (cough; shortness of breath; troubled breathing; fever; tightness in chest; wheezing).

CHEST: pain; pneumonia (cough; shortness of breath; troubled breathing; fever; tightness in chest; wheezing).

BACK: pain.

EXTREMITIES: arthralgia (joint pain); arthrosis (joint pain); myalgia (muscle pain).

SKIN: **dermatitis**, **contact** (skin rash); **dryness**; **exfoliation** (scaling); **pruritus** (itching); **skin rash**; acne; alopecia (loss or thinning of hair); hyperesthesia (increased skin sensitivity); photosensitivity reaction (skin changes after exposure to sun, including skin rash, itching, redness, or pain); ulcers, skin (sores on skin) (rebound effect?).

GENERALITIES: **flu-like syndrome** (fever, with or without chills; body ache; headache); **pain at application site**; **paresthesia** (tingling or burning sensation); alopecia (loss or thinning of hair); arthralgia (joint pain); arthrosis (joint pain); asthenia (lack or loss of strength); edema, application site (swelling); hypertension (high blood pressure); hypokinesia (decrease in body movement); infection; myalgia (muscle pain); sinusitis (pain or tenderness around eyes and cheekbones; fever; headache; nasal congestion); anaphylactoid reactions.

DIAGNOSTIC TESTS: hematuria.

Diclofenac and Misoprostol (Systemic)

Commercial name(s): Arthrotec 50; Arthrotec 75.

Category: Antirheumatic (nonsteroidal anti-inflammatory).

Conventional indications: Arthritis, rheumatoid (treatment); Osteoarthritis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: confusion; depression, mental; disorientation; hallucinations (seeing, hearing, or feeling things that are not there); irritability; nervousness; psychotic reaction.

VERTIGO: syncope (fainting).

HEAD: alopecia (loss of hair); meningitis, aseptic (severe headache; drowsiness; confusion; stiff neck and/or back; general feeling of illness or nausea); migraine (headache, severe and throbbing; sometimes with nausea or vomiting).

VISION: vision, abnormal.

FACE: acne.

MOUTH: dryness; taste perversion (change in sense of taste).

THROAT: dysphagia (trouble in swallowing); ulceration, esophageal.

STOMACH: dyspepsia (heartburn); nausea; anorexia (decreased appetite); bleeding, gastrointestinal; ulceration, gastric; ulceration, peptic (severe stomach pain, cramping, or burning; bloody, or black tarry stools; vomiting of material that looks like coffee grounds; severe and continuing nausea; heartburn and/or indigestion); pain; vomiting.

ABDOMEN: **flatulence** (gas); **pain, abdominal**; bleeding, gastrointestinal; pancreatitis (fever with or without chills; stomach pain; swelling and/or tenderness in upper stomach); perforation, intestinal (severe pain, cramping, or burning; bloody, or black tarry stools; vomiting of material that looks like coffee grounds; severe and continuing nausea; heartburn and/or indigestion); ulceration, peptic (severe stomach pain, cramping, or burning; bloody, or black tarry stools; vomiting of material that looks like coffee grounds;

severe and continuing nausea; heartburn and/or indigestion); hepatic reactions, severe (chills; fever; itching of the skin; nausea; yellow eyes or skin; stomach pain; unusual tiredness).

RECTUM: **diarrhea** (dose-related); bleeding, gastrointestinal; bleeding, rectal.

KIDNEYS: failure, renal (increased blood pressure; shortness of breath, troubled breathing, tightness in chest and/or wheezing; sudden decrease in the amount of urine; swelling of face, fingers, feet, and/or lower legs; continuing thirst; unusual tiredness or weakness; weight gain).

GENITALIA MALE: impotence (decrease in sexual ability).

GENITALIA FEMALE: bleeding, vaginal.

RESPIRATION: dyspnea (shortness of breath).

CHEST: arrhythmias (irregular heartbeat); palpitations (pounding heartbeat); tachycardia (increased heart rate); bradycardia (slow heartbeat).

EXTREMITIES: myalgia (muscle pain).

SLEEP: drowsiness.

FEVER: fever.

SKIN: acne; alopecia (loss of hair); purpura (bruises and/or red spots on skin)

GENERALITIES: agranulocytosis (fever with or without chills; sores, ulcers, or white spots on lips or in mouth; sore throat); alopecia (loss of hair); anemia, aplastic (shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sores, ulcers, or white spots on lips or in mouth; sore throat); anemia, hemolytic (troubled breathing, exertional; unusual tiredness or weakness); arrhythmias (irregular heartbeat); ecchymosis (large, flat blue or purplish patches in the skin); fluid retention; hepatitis (chills; fever; itching of the skin; nausea; yellow eyes or skin; stomach pain; unusual tiredness); hypertension (increased blood pressure); hypotension (lightheadedness or dizziness); jaundice (chills; fever; itching of the skin; nausea; yellow eyes or skin; stomach pain; unusual tiredness); leukopenia (rarely, fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); myalgia (muscle pain); palpitations (pounding heartbeat); pancreatitis (fever with or without chills; stomach pain; swelling and/or tenderness in upper stomach); paresthesias (tingling, burning, or prickling sensations); seizures; Steven-Johnson syndrome (bleeding or crusting sores on lips; chest pain; fever with or without chills; muscle cramps or pain; skin rash; sores, ulcers, or white spots on mouth; sore throat); tachycardia (increased heart rate); thrombocytopenia (rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); tremor (trembling or shaking); anaphylaxis or anaphylactoid reactions (changes in facial skin color; skin rash, hives, and/or itching; fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing); bradycardia (slow heartbeat).

DIAGNOSTIC TESTS: agranulocytosis; anemia, aplastic; anemia, hemolytic; leukopenia; thrombocytopenia.

Didanosine (Systemic)

Commercial name(s): Videx; Videx EC.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus (HIV) infection, advanced (treatment); Immunodeficiency syndrome, acquired (AIDS) (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: anxiety; irritability; restlessness.

HEAD: headache.

EYE: depigmentation, retinal.

MOUTH: dryness.

STOMACH: nausea.

ABDOMEN: pain, abdominal; pancreatitis (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); hepatic dysfunction (dark urine; light-colored stools; loss of appetite; nausea and vomiting; unusual tiredness; yellow eyes or skin; fever with or without chills; stomach pain).

RECTUM: diarrhea (increased bowel movements; loose stools).

RESPIRATION: pneumonia.

CHEST: pneumonia; cardiomyopathy (shortness of breath; swelling of feet or lower legs).

EXTREMITIES: neuropathy, peripheral (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet).

SLEEP: insomnia.

SKIN: rash.

GENERALITIES: toxicity, CNS (anxiety; headache; irritability; insomnia; restlessness); pancreatitis (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); acidosis, lactic, fatal (in pregnant women) [combination of Didanosine and Stavudine with other antiretroviral agents]; anemia; death (due to pancreatitis); granulocytopenia; hepatitis (yellow skin and eyes); hypersensitivity (fever and chills; skin rash and itching); lactic acidosis/hepatic steatosis syndrome (in pregnant women); leukopenia; sarcoma; seizures (convulsions); thrombocytopenia (unusual tiredness and weakness; fever, chills, or sore throat; unusual bleeding or bruising); hyperuricemia (joint pain; side, lower back, or stomach pain; swelling of feet or lower legs).

DIAGNOSTIC TESTS: acidosis, lactic [combination of Didanosine and Stavudine with other antiretroviral agents]; anemia; granulocytopenia; leukopenia; thrombocytopenia; hyperuricemia.

Diethylcarbamazine (Systemic)

Commercial name(s): Hetrazan.

Category: Anthelmintic (systemic).

Conventional indications: Filariasis, Bancroft's (treatment); Loiasis (treatment); Onchocerciasis (treatment); Tropical eosinophilia (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: headache.

EYE: itching; swelling; *hemorrhage, retinal* (in very heavily infected patients with loiasis).

VISION: *disturbances, visual* (loss of vision; night blindness; tunnel vision) (with prolonged use in onchocerciasis).

FACE: itching; swelling.

STOMACH: *nausea; vomiting*.

EXTREMITIES: arthralgia (joint pain).

FEVER: *fever*.

SKIN: *skin rash*.

GENERALITIES: arthralgia (joint pain); **malaise** (unusual tiredness or weakness); *lymphadenopathy* (painful and tender glands in neck, armpits, or groin); *encephalopathy* (in very heavily infected patients with loiasis); *Mazzotti reaction* (fever, tachycardia, hypotension, adenitis, and an ocular inflammatory response; usually results from the death of microfilariae) (in heavily infected patients with onchocerciasis).

Diethyltoluamide (Topical)

Commercial name(s): *Backwoods Cutter; Cutter Pleasant Protection; Deep Woods OFF!; Deep Woods OFF! For Sportsmen; Muskol; OFF!; OFF! For Maximum Protection; OFF! Skintastic; OFF! Skintastic For Children; OFF! Skintastic For Kids; Ultra Muskol*

Category: Insect repellent (topical).

Conventional indications: Infections transmitted by bites of insects (prophylaxis); Infestations by insects or other arthropods (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *coma* (loss of consciousness); *confusion* (mood or mental changes); *psychosis; speech, slurred*.

MOUTH: *speech, slurred*.

CHEST: *bradycardia* (slow heartbeat).

EXTREMITIES: *ataxia* (clumsiness or unsteadiness); *cramping, muscle; jerking movement, clonic* (uncontrolled jerking movement).

SLEEP: *insomnia* (trouble in sleeping).

SKIN: *eruptions, bullous* (skin blisters); *erythema* (reddening of skin); *urticaria, contact* (skin rash; hives; itching).

GENERALITIES: *anaphylaxis* (changes in facial skin color; skin rash; hives; itching; fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath; troubled breathing; tightness in chest; wheezing); *anaphylactic shock; blood pressure, decrease in, sudden, severe; bradycardia* (slow heartbeat); *collapse; coma* (loss of consciousness); *hypotension* (low blood pressure; unusual tiredness or weakness); *seizures; tremors*.

Difenoxin and Atropine (Systemic)

Commercial name(s): *Motofen*.

Category: Antidiarrheal (antiperistaltic).

Conventional indications: Diarrhea (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: confusion; coma; excitement, unusual; irritability, unusual; nervousness, unusual; restlessness, unusual.

VERTIGO: dizziness; lightheadedness.

HEAD: headache.

VISION: blurred vision; near vision, changes in.

NOSE: dryness, severe.

MOUTH: dryness; dryness, severe.

THROAT: dryness, severe.

ABDOMEN: ileus, paralytic; megacolon, toxic (bloating; constipation; loss of appetite; severe stomach pain with nausea and vomiting).

RECTUM: constipation.

BLADDER: urination, difficult.

RESPIRATION: depression, respiratory (severe shortness of breath or troubled breathing).

CHEST: heartbeat, fast.

SLEEP: drowsiness; trouble in sleeping.

FEVER: fever.

SKIN: dryness; flushing, unusual; warmth, unusual.

GENERALITIES: anticholinergic effects, mild (blurred vision; difficult urination; dryness of skin and mouth; fever); tiredness or weakness, unusual; anticholinergic effects, severe (continuing blurred vision or changes in near vision; fast heartbeat; severe drowsiness; severe dryness of mouth, nose, and throat; unusual warmth, dryness, and flushing of skin); coma; heartbeat, fast.

Secondary Actions or Rebound Effects: *withdrawal syndrome* (reappearance of disease symptoms).

Digitalis Glycosides (Systemic)

Commercial name(s): *Digitaline*; *Lanoxicaps*; *Lanoxin*; *Lanoxin Elixir Pediatric*; *Lanoxin Injection*; *Lanoxin Injection Pediatric*; *Lanoxin Pediatric Elixir*; *Lanoxin Pediatric Injection*; *Novo-Digoxin*.

Category: Antiarrhythmic; Cardiotonic.

Conventional indications: Arrhythmias, cardiac (prophylaxis and treatment); Congestive heart failure (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; apathy* (feeling of not caring); *confusion; depression, mental; hallucinations* (seeing or hearing things that are not there).

VERTIGO: *dizziness.*

HEAD: *headache.*

VISION: *blurred or yellow vision.*

STOMACH: *anorexia* (loss of appetite); *nausea; vomiting.*

ABDOMEN: *pain, abdominal* (in adults; with therapeutic, high, or toxic doses).

RECTUM: *diarrhea.*

CHEST: *arrhythmias* (in infants or children; with therapeutic, high, or toxic doses); *block, heart, first-, second-, or third-degree* (in adults; with therapeutic, high, or toxic doses); *bradycardia, sinus* (in infants or children; with therapeutic, high, or toxic doses); *disturbances, conduction* (in infants or children; with therapeutic, high, or toxic doses); *contractions, premature, ventricular, unifocal or multiform (especially bigeminy or trigeminy)* (in adults; with therapeutic, high, or toxic doses); *dissociation, atrioventricular (AV)* (in adults; with therapeutic, high, or toxic doses); *fibrillation, ventricular* (in adults; with therapeutic, high, or toxic doses); *gynecomastia* (enlargement of breast tissue in males) (with long-term use); *junctional (nodal) rhythm, accelerated* (in adults; with therapeutic, high, or toxic doses); *tachycardia, atrial, with or without block* (in infants, children or adults; with therapeutic, high, or toxic doses); *tachycardia, junctional (nodal)* (in infants or children; with therapeutic, high, or toxic doses); *tachycardia, ventricular* (cardiovascular effects may be manifested as slow and/or irregular heartbeat, palpitations, or fainting) (in adults; with therapeutic, high, or toxic doses); *arrest, cardiac; bradyarrhythmias, progressive.*

SKIN: *skin rash; psoriasis, psoriasiform eruption* [1].

GENERALITIES: *weakness; arrhythmias* (in infants or children; with therapeutic, high, or toxic doses); *block, heart, first-, second-, or third-degree* (in adults; with therapeutic, high, or toxic doses); *bradycardia, sinus* (in infants or children; with therapeutic, high, or toxic doses); *contractions, premature, ventricular, unifocal or multiform (especially bigeminy or trigeminy)* (in adults; with therapeutic, high, or toxic doses); *depression, ST segment* (in adults; with therapeutic, high, or toxic doses); *dissociation, atrioventricular (AV)* (in adults; with therapeutic, high, or toxic doses); *disturbances, conduction* (in infants or children; with therapeutic, high, or toxic doses); *prolongation, PR interval* (in adults; with therapeutic, high, or toxic doses); *tachycardia, atrial, with or without block* (in infants, children or adults; with therapeutic, high, or toxic doses); *tachycardia, junctional (nodal)* (in infants or children; with therapeutic, high, or toxic doses); *tachycardia, ventricular* (cardiovascular effects may be manifested as slow and/or irregular heartbeat, palpitations, or fainting) (in adults; with therapeutic, high, or toxic doses); *thrombocytopenia* (may be seen as nosebleeds or bleeding gums); *bradyarrhythmias, progressive*

DIAGNOSTIC TESTS: *block, heart, first-, second-, or third-degree; contractions, premature, ventricular, unifocal or multiform; depression, ST segment; dissociation, atrioventricular (AV); prolongation, PR interval; tachycardia, atrial, with or without block; tachycardia, junctional (nodal); tachycardia, ventricular; thrombocytopenia.*

Secondary Actions or Rebound Effects: *congestive heart failure, exacerbated* (as a result of withdrawal of the inotropic effects of digitalis); *ventricular rate, increased* (as a result of withdrawal of digitalis being used for atrial fibrillation).

Complementary Bibliography: [1] Kim GK, Del Rosso JQ. Drug-provoked psoriasis: is it drug induced or drug aggravated? Understanding pathophysiology and clinical relevance. *J Clin Aesthet Dermatol* 2010; **3**(1): 32-38.

Digoxin Immune Fab (Ovine) (Systemic)

Commercial name(s): *Digibind*.

Category: Antidote, to digitalis glycoside toxicity.

Conventional indications: Toxicity, digitalis glycoside (treatment).

Primary Actions or Pathogenetic Symptoms

FEVER: *fever*.

GENERALITIES: *allergic reactions; febrile reactions; hypokalemia*.

DIAGNOSTIC TESTS: *hypokalemia*.

Secondary Actions or Rebound Effects: *congestive heart failure, exacerbated* (as a result of withdrawal of the inotropic effects of digitalis); *ventricular rate, increased* (as a result of withdrawal of digitalis being used for atrial fibrillation).

Dihydroergotamine (Nasal-Systemic)

Commercial name(s): *Migranal*.

Category: Antimigraine agent.

Conventional indications: Headache, migraine (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; confusion; depression; euphoria* (unusual feeling of well being); *nervousness*; delirium.

VERTIGO: *dizziness*.

EYE: *conjunctivitis* (red or irritated eyes); *pain; watering, increased*.

VISION: *blurred vision*.

EAR: *pain*.

HEARING: *tinnitus* (ringing or buzzing in the ears).

NOSE: **irritation in the nose** (burning or tingling sensation, dryness, soreness or pain in the nose; runny and/or stuffy nose; unexplained nosebleeds); **sinusitis** (runny or stuffy nose; headache).

FACE: *edema* (swelling of face).

MOUTH: **dryness; taste perversion** (change in sense of taste); *salivation, increased* (increased watering of the mouth).

THROAT: **pharyngitis** (sore throat); *dysphagia* (difficulty swallowing).

STOMACH: nausea; vomiting; anorexia (decreased appetite); dyspepsia (heartburn); pain.

RECTUM: diarrhea.

RESPIRATION: bronchitis (congestion in chest; cough; difficult and/or painful breathing); dyspnea (shortness of breath); infection, upper respiratory tract (cough, fever, sneezing, or sore throat); depression, respiratory (shortness of breath).

CHEST: angina pectoris; arrythmias (irregular heartbeat); bronchitis (congestion in chest; cough; difficult and/or painful breathing); infarction or ischemia, myocardial (feeling of heaviness in chest; pain in back, chest, or left arm; shortness of breath or troubled breathing); palpitations (pounding heartbeat); vasospasm, coronary, induced (chest pain).

EXTREMITIES: stiffness, muscle; edema (swelling of fingers, feet or lower legs); ischemia, peripheral (itching of skin; numbness and tingling of face, fingers, or toes; pain in arms legs, or lower back, especially pain in calves and/or heels upon exertion; pale, bluish-colored, or cold hands or feet; weak or absent pulses in legs); tremors (trembling or shaking of hands or feet); weakness, muscle; numbness in the legs or arms; pain in the legs or arms; tingling in the legs or arms.

SLEEP: somnolence (sleepiness); insomnia (trouble in sleeping) (rebound effect?); yawning, increased.

FEVER: fever.

PERSPIRATION: sweating, increased.

SKIN: cold, clammy skin; petechia (pinpoint red spots on skin); pruritus (itching of the skin); skin rash.

GENERALITIES: **asthenia** (unusual tiredness or weakness); **fatigue** (unusual feeling of tiredness); **hot flashes** (sudden sweatings and feelings of warmth); **paresthesia** (sensation of burning, warmth, heat, numbness, tightness, or tingling); **sinusitis** (runny or stuffy nose; headache); stiffness, muscle; arrythmias (irregular heartbeat); hypotension (dizziness or lightheadedness when getting up from a lying or sitting position; sudden fainting); infarction or ischemia, myocardial (feeling of heaviness in chest; pain in back, chest, or left arm; shortness of breath or troubled breathing); infection, upper respiratory tract (cough, fever, sneezing, or sore throat); palpitations (pounding heartbeat); tremors (trembling or shaking of hands or feet); weakness, muscle; convulsions; hypertension (dizziness; headaches, severe or continuing; increase in blood pressure).

Dimercaprol (Systemic)

Commercial name(s): BAL in Oil.

Category: Chelating agent.

Conventional indications: Toxicity, arsenic (treatment); Toxicity, gold (treatment); Toxicity, mercury (treatment); Toxicity, lead (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: anxiety; unrest.

HEAD: headache.

EYE: conjunctivitis; twitching, eyelid; watery eyes.

NOSE: runny nose.

FACE: burning feeling in lips.

MOUTH: burning feeling; odor, breath, unpleasant; watery mouth.

THROAT: burning feeling; constriction or pain, feeling of.

STOMACH: nausea; vomiting.

ABDOMEN: *pain, abdominal.*

GENITALIA MALE: burning feeling in penis.

CHEST: constriction or pain, feeling of; heartbeat, fast.

BACK: *pain, lower back.*

EXTREMITIES: constriction or pain in hands, feeling of; tingling of hands.

SLEEP: drowsiness, severe.

FEVER: fever (especially in children).

PERSPIRATION: sweating of forehead and hands.

GENERALITIES: blood pressure, increased (both systolic and diastolic, roughly dose related); heartbeat, fast; pain at injection site; weakness; *abscesses, usually sterile, at injection site* (painful, red, and pus-containing sores); *tremors*; convulsions.

Dimethyl Sulfoxide (Mucosal-Local)

Commercial name(s): *Rimso-50.*

Category: Anti-inflammatory, local (interstitial cystitis).

Conventional indications: Cystitis, interstitial (treatment).

Primary Actions or Pathogenetic Symptoms

MOUTH: odor, garlic-like, on breath; taste, garlic-like.

SKIN: odor, garlic-like.

GENERALITIES: *anaphylactoid reaction* (nasal congestion; shortness of breath or troubled breathing; skin rash, hives, or itching; swelling of face); *discomfort, moderate to severe, during administration.*

Dinoprost (Parenteral-Local)

Commercial name(s): *Prostin FAlpha.*

Category: Abortifacient; Uterine stimulant; Diagnostic aid (angiography).

Conventional indications: Abortion, elective; Abortion, incomplete (treatment); Abortion, therapeutic; Labor, induction of; Angiography adjunct.

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; panic, feeling of* (inadvertent intravascular administration or absorption).

VERTIGO: *dizziness; faintness* (inadvertent intravascular administration or absorption).

HEAD: *headache.*

EYE: *burning.*

VISION: *double vision.*

FACE: *flushing; redness.*

STOMACH: **cramps; nausea; pain; vomiting;** *hiccups; thirst, unusual.*

ABDOMEN: *ileus, adynamic* (constipation, tender or mildly bloated abdomen); *pain, abdominal, severe or continuing.*

RECTUM: *diarrhea.*

BLADDER: *dysuria* (difficult or painful urination); *retention, urinary* (decreased frequency of urination).

URINE: *hematuria* (blood in urine).

GENITALIA FEMALE: **abortion; oxytocic** (uterine stimulant); *pain, uterine, increased, accompanying abortion; tetany, uterine* (continuous and severe cramping of the uterus); *bleeding, uterine, unusual increase in; endometritis* (continuing chills or shivering; continuing fever; foul-smelling vaginal discharge; pain in lower abdomen).

RESPIRATION: *bronchoconstriction* (wheezing; tightness in chest; shortness of breath; sudden coughing) (especially in asthmatics).

COUGH: *cough, continuing.*

CHEST: *block, heart, second-degree* (decreased or irregular heartbeat); *bradycardia* (slow heartbeat); *bronchoconstriction* (wheezing; tightness in chest; shortness of breath; sudden coughing) (especially in asthmatics); *burning feeling in breasts; engorgement, breast* (fullness or tenderness of breasts); *pain, chest; pressure or pain, substernal* (pressing or painful feeling in chest); *tachycardia* (fast heartbeat).

BACK: *pain in back.*

EXTREMITIES: *pain in legs; pain in shoulder, vasoconstriction, peripheral* (pale, cool, or blotchy skin on arms or legs; weak or absent pulse in arms or legs).

SLEEP: *drowsiness.*

CHILL: *chills; shivering.*

FEVER: *fever, transient.*

PERSPIRATION: *sweating, increased.*

GENERALITIES: *anaphylaxis, generalized* (redness and itching of skin; hives; swelling of face, inside the nose, and eyelids; shortness of breath; trouble in breathing; wheezing; tightness in chest); *bradycardia* (slow heartbeat); *inflammation and pain at injection site; paresthesias* (numbness in legs or other body parts); *tachycardia* (fast heartbeat); *vasoconstriction, peripheral* (pale, cool, or blotchy skin on arms or legs; weak or absent pulse in arms or legs); *hypertension* (inadvertent intravascular administration or absorption).

DIAGNOSTIC TESTS: *hematuria.*

Dinoprostone (Cervical/Vaginal)

Commercial name(s): *Cervidil; Prepidil; Prostin E.*

Category: Prostaglandin; Oxytocic; Abortifacient; Antihemorrhagic (postabortion uterine bleeding; postpartum uterine bleeding).

Conventional indications: Abortion, elective [Dinoprostone vaginal suppositories]; Abortion, missed (treatment) or Abortion, therapeutic [Dinoprostone vaginal suppositories]; Cervical ripening [Dinoprostone cervical gel or dinoprostone vaginal system]; Hemorrhage, postpartum (treatment) or Hemorrhage, postabortion (treatment)

[Dinoprostone vaginal suppositories]; Hydatidiform mole, benign (treatment)
[Dinoprostone vaginal suppositories]; Labor, induction of [Dinoprostone vaginal gel].

Primary Actions or Pathogenetic Symptoms

HEAD: headache [Vaginal suppositories or vaginal gel].

STOMACH: **cramps; nausea; vomiting.**

ABDOMEN: **cramps, abdominal; ileus, adynamic** (constipation, tender or mildly bloated abdomen) [Vaginal suppositories or vaginal gel].

RECTUM: **diarrhea.**

GENTILIA FEMALE: **abortion; coagulation; oxytocic** (uterine stimulant); hypertonus, uterine (severe cramping of the uterus); pain, uterine, increased, accompanying abortion; bleeding, uterine, unusual increase in; edema, vulvar [Vaginal suppositories or vaginal gel]; endometritis (continuing chills or shivering; continuing fever; foul-smelling vaginal discharge; pain in lower abdomen).

RESPIRATION: bronchoconstriction (wheezing; troubled breathing; tightness in chest) (especially in asthmatics).

CHEST: bradycardia (slow heartbeat); bronchoconstriction (wheezing; troubled breathing; tightness in chest) (especially in asthmatics); pressure or pain, substernal (pressing or painful feeling in chest); tachycardia (fast heartbeat).

EXTREMITIES: vasoconstriction, peripheral (pale, cool, or blotchyskin on arms or legs; weak or absent pulse in arms or legs).

CHILL: chills [Vaginal suppositories or vaginal gel]; shivering [Vaginal suppositories or vaginal gel].

FEVER: **fever, transient.**

GENERALITIES: anaphylaxis, generalized (swelling of face, inside the nose, and eyelids; hives; shortness of breath; trouble in breathing; tightness in chest; wheezing); bradycardia (slow heartbeat); tachycardia (fast heartbeat); vasoconstriction, peripheral (pale, cool, or blotchyskin on arms or legs; weak or absent pulse in arms or legs); flushing [Vaginal suppositories or vaginal gel].

Diphenidol (Systemic)

Commercial name(s): *Ansmin; Avomol; Celmidol; Cephadol; Cerrosa; Maniol; Nometric; Satanolon; Verterge; Vontol; Yesdol.*

Category: Antiemetic; Antivertigo agent.

Conventional indications: Vertigo (prophylaxis and treatment); Nausea and vomiting (prophylaxis and treatment); Nausea and vomiting, cancer chemotherapy-induced (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

MIND: nervousness; restlessness; confusion; disorientation; hallucinations (seeing, hearing, or feeling things that are not there).

VERTIGO: dizziness.

HEAD: headache.

VISION: blurred vision.

MOUTH: dryness.

STOMACH: heartburn; pain; upset stomach.

RESPIRATION: depression, respiratory (shortness of breath or troubled breathing).

SLEEP: drowsiness; trouble in sleeping.

SKIN: skin rash.

GENERALITIES: tiredness or weakness, unusual; hypotension (severe unusual tiredness or weakness).

Diphenoxylate and Atropine (Systemic)

Commercial name(s): Lofene; Logen; Lomocot; Lomotil; Lonox; Vi-Atro.

Category: Antidiarrheal (antiperistaltic).

Conventional indications: Diarrhea (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: confusion; depression, mental; coma; excitement, unusual; irritability, unusual; nervousness, unusual; restlessness, unusual.

VERTIGO: dizziness; light-headedness.

HEAD: headache.

VISION: blurred vision; near vision, changes in.

NOSE: dryness, severe.

MOUTH: dryness; swelling of the gums.

THROAT: dryness, severe.

ABDOMEN: ileus, paralytic (bloating; constipation; loss of appetite; severe stomach pain with nausea and vomiting); megacolon, toxic (bloating; constipation; loss of appetite; severe stomach pain with nausea and vomiting); pancreatitis (abdominal pain, severe; back pain; fever; loss of appetite; nausea and vomiting).

RECTUM: constipation.

BLADDER: urination, difficult.

RESPIRATION: depression, respiratory (severe shortness of breath or troubled breathing).

CHEST: heartbeat, fast.

EXTREMITIES: numbness of hands or feet.

SLEEP: drowsiness.

FEVER: fever; hyperthermia (flushing; increased body temperature; increased breathing rate; rapid heartbeat).

SKIN: dryness; itching; skin rash; flushing, unusual; warmth, unusual.

GENERALITIES: anticholinergic effects, mild (blurred vision; difficult urination; dryness of skin and mouth; fever); CNS depression (dizziness or light-headedness; drowsiness; mental depression); hyperthermia (flushing; increased body temperature; increased breathing rate; rapid heartbeat); pancreatitis (abdominal pain, severe; back pain; fever; loss of appetite; nausea and vomiting); anticholinergic effects, severe (continuing blurred vision

or changes in near vision; fast heartbeat; severe drowsiness; severe dryness of mouth, nose, and throat; unusual warmth, dryness, and flushing of skin); coma; heartbeat, fast.

Secondary Actions or Rebound Effects: *withdrawal syndrome.*

Diphtheria and Tetanus Toxoids (Systemic)

Commonly used names: DT - Diphtheria and Tetanus Toxoids; Td - Tetanus and Diphtheria Toxoids.

Category: Immunizing agent (active).

Conventional indications: Diphtheria and tetanus (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *crying, persistent* [DT only]; *fretfulness* [DT only].

HEAD: *headache* [Td only].

STOMACH: *anorexia* (loss of appetite) [DT only]; *vomiting* [DT only].

CHEST: *lymphadenopathy, axillary* (swelling of glands in armpit) [Td only]; *tachycardia* (fast heartbeat) [Td only].

EXTREMITIES: *aches, muscle* [Td only]; *arthralgias* (joint aches or pain); *mono- and polyneuropathies, various.*

SLEEP: *drowsiness* [DT only].

CHILL: *chills* [Td only]; *coldness* (in 1 child).

FEVER: *fever under 39.4°C (103°F); fever over 39.4°C (103°F).*

SKIN: *atrophy, subcutaneous (dent or indentation) at injection site; pallor* (in 1 child); *pruritus* (itching); *skin rash; urticaria* (hives).

GENERALITIES: *redness or hard lump at injection site; swelling, pain, or tenderness at injection site* [DT only]; *aches, muscle* [Td only]; *atrophy, subcutaneous (dent or indentation) at injection site; hypotension* (unusual tiredness or weakness) [Td only]; *malaise* (general feeling of discomfort or illness) [Td only]; *nodule (hard lump) at injection site; tachycardia* (fast heartbeat) [Td only]; *abscesses, sterile; anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of soles or palms; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *arthralgias* (joint aches or pain); *Arthus-type reaction* (swelling, blistering, pain, or other severe local reaction at injection site); *convulsions; encephalopathy; mono- and polyneuropathies, various; neurologic reaction* (confusion; excessive sleepiness; fever over 39.4°C [103°F]; headache, severe or continuing; seizures; unusual irritability; vomiting, severe or continuing); *hyporesponsiveness* (in 1 child).

Diphtheria and Tetanus Toxoids and Acellular Pertussis Adsorbed and Hepatitis B (Recombinant) and Inactivated Poliovirus Vaccine Combined (Systemic)

Commercial name(s): *Pediarix*.

Category: Immunizing agent (active).

Conventional indications: Diphtheria, tetanus, pertussis, all known subtypes of hepatitis B virus, and poliomyelitis (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *cry, unusual; fussiness; restlessness; irritability; lethargy* (unusual drowsiness; dullness, tiredness, weakness or feeling of sluggishness).

HEAD: *alopecia* (hair loss; thinning of hair); *headache*.

EYE: *angioedema* (large, hive-like swelling on eyelids).

EAR: *pain*.

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

STOMACH: *appetite, loss of; nausea; vomiting*.

ABDOMEN: *intussusception* (diarrhea; pain or cramping in abdomen; nausea and vomiting); *pain, abdominal*.

RECTUM: *diarrhea*.

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: *cyanosis* (bluish color of fingernails, lips, skin, palms, or nail beds); *infection, respiratory tract* (cough, fever, sneezing, sore throat).

EXTREMITIES: *angioedema* (large, hive-like swelling on hands, legs, feet); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *hypotonia* (unusual weak feeling; loss of strength or energy; muscle pain or weakness); *neuritis, brachial; swelling, limb*.

SLEEP: *sleeping more than usual; somnolence* (sleepiness or unusual drowsiness).

FEVER: *fever*.

SKIN: *alopecia* (hair loss; thinning of hair); *cellulitis* (itching, pain, redness, swelling, tenderness, warmth on skin); *erythema* (flushing, redness of skin; unusually warm skin); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *pallor* (paleness of skin); *petechiae* (small red or purple spots on skin); *pruritus* (itching skin); *purpura, thrombocytopenic, idiopathic* (unusual bleeding or bruising; bloody nose; heavier menstrual periods; pinpoint red spots on skin; black, tarry stools; blood in urine; unusual tiredness or weakness; fever; skin rash); *rash; urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *injection site reaction* (bleeding; blistering; burning; coldness; discoloration of skin; feeling of pressure; hives; infection; inflammation; itching; lumps; numbness; pain; rash; redness; scarring; soreness; stinging; swelling; tenderness; tingling; ulceration; warmth); *alopecia* (hair loss; thinning of hair); *anaphylactic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *angioedema* (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs); *arthralgia* (pain in joints;

muscle pain or stiffness; difficulty in moving); *asthenia* (lack or loss of strength); *convulsions* (seizures); *convulsive disorder*; *cyanosis* (bluish color of fingernails, lips, skin, palms, or nail beds); *death*; *edema* (swelling); *encephalopathy* (agitation; back pain; blurred vision; coma; confusion; dizziness; drowsiness; fever; hallucinations; headache; irritability; mood or mental changes; seizures; stiff neck; unusual tiredness or weakness; vomiting); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *Guillain-Barre syndrome*; *hypersensitivity* (fast heartbeat; fever; hives; itching; irritation; hoarseness; joint pain; stiffness or swelling; rash; redness of skin; shortness of breath; swelling of eyelids, face, lips, hands, or feet; tightness in chest; troubled breathing or swallowing; wheezing); *hypersensitivity reactions, Arthus-type*; *hypotonia* (unusual weak feeling; loss of strength or energy; muscle pain or weakness); *hypotonic-hyporesponsive episodes* (collapse or shock-like state); *immunodeficiency, congenital, with sepsis; infection, respiratory tract* (cough, fever, sneezing, sore throat); *jaundice* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *lymphadenopathy* (swollen, painful, or tender lymph glands in neck, armpit, or groin); *malaise* (general feeling of discomfort or illness); *neuroblastoma*; *purpura, thrombocytopenic, idiopathic* (unusual bleeding or bruising; bloody nose; heavier menstrual periods; pinpoint red spots on skin; black, tarry stools; blood in urine; unusual tiredness or weakness; fever; skin rash); *Sudden Infant Death Syndrome (SIDS)*; *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: *thrombocytopenia*.

Diphtheria and Tetanus Toxoids and Pertussis Vaccine Adsorbed (Systemic)

Commercial name(s): *Acel-Imune; Certiva; Infanrix; Tripedia*.

Category: Immunizing agent (active).

Conventional indications: Diphtheria, tetanus, and pertussis (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *crying, persistent and inconsolable, occurring within 48 hours and lasting 3 or more hours; fretfulness.*

EXTERNAL THROAT: *lymphadenopathy, cervical* (swollen glands on side of neck following DTP injections into arm).

STOMACH: *anorexia*.

SLEEP: *drowsiness*.

FEVER: **fever between 38 and 39°C (100.4 and 102.2°F)** (usually lasting up to, but no longer than, 48 hours; may be accompanied by fretfulness, drowsiness, vomiting, and anorexia); *fever between 39 and 40°C (102.2 and 104°F)* (usually lasting up to, but no longer than, 48 hours; may be accompanied by fretfulness, drowsiness, vomiting, and

anorexia); *fever between 40 and 40.5°C (104 and 105°F)* (usually lasting up to, but no longer than, 48 hours; may be accompanied by fretfulness, drowsiness, vomiting, and anorexia); *fever of 40.5°C (105°F) or more, occurring within 48 hours*.

SKIN: *pruritus* (itching skin); *skin rash*; *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: **abscess or local reaction** (redness, swelling, tenderness, or pain at injection site); **lump at injection site**; *hypotonic-hyporesponsive episodes* (collapse or shock-like state); *abscess, sterile* (pain, redness, and hardness at site of injection); *allergic reactions*; *anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of soles or palms; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *bruising, injection site*; *convulsions, with or without fever, occurring within 3 days*; *encephalopathy, occurring within 7 days* (severe alterations in consciousness, with generalized or focal neurological signs; confusion; severe or continuing headache; unusual irritability; excessive sleepiness; severe or continuing vomiting); *Sudden infant death syndrome (SIDS)*.

Diphtheria and Tetanus Toxoids and Pertussis Vaccine Adsorbed and Haemophilus B Conjugate Vaccine (Systemic)

Commercial name(s): *DPT-Hib*; *Tetramune*.

Category: Immunizing agent (active).

Conventional indications: Diphtheria, tetanus, pertussis, and *Haemophilus influenzae* type b diseases (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: **fretfulness**; **irritability**; *crying, persistent and inconsolable, occurring within 48 hours and lasting 3 or more hours*; *lethargy* (lack of interest; reduced physical activity).

STOMACH: *anorexia* (loss of appetite); *vomiting*.

RECTUM: *diarrhea*.

SLEEP: **drowsiness**

FEVER: **fever up to 39° C (102.2° F)** (usually lasting up to, but no longer than, 48 hours; may be accompanied by fretfulness, drowsiness, vomiting, and anorexia); *fever between 39 and 40° C (102.2 and 104° F)* (usually lasting up to, but no longer than, 48 hours; may be accompanied by fretfulness, drowsiness, vomiting, and anorexia); *fever between 40 and 40.4° C (104 and 104.8° F)* (usually lasting up to, but no longer than, 48 hours; may be accompanied by fretfulness, drowsiness, vomiting, and anorexia); *fever of 40.5° C (105° F) or more, occurring within 48 hours*.

SKIN: *skin rash*.

GENERALITIES: **erythema, swelling, or warm feeling at injection site** (redness, swelling, or warm feeling at place of injection); **lump at injection site**; **pain or tenderness at injection site**; *induration at injection site* (hard lump); *abscess, sterile* (redness, swelling, tenderness, or pain at injection site); *anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of soles or palms; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness,

sudden and severe); *convulsions, with or without fever, occurring within 3 days; encephalopathy, occurring within 7 days* (severe alterations in consciousness, with generalized or focal neurological signs; confusion; severe or continuing headache; unusual and continuing irritability; excessive sleepiness; severe or continuing vomiting); *hypotonic-hyporesponsive episode, occurring within 48 hours* (collapse or shock-like state).

Diphtheria Antitoxin (Systemic)

Category: Immunizing agent (passive).

Conventional indications: Diphtheria (prophylaxis); Diphtheria (treatment).

Primary Actions or Pathogenetic Symptoms

CHILL: thermal reaction (chilly sensation; slight difficulty in breathing; rapid rise in body temperature).

FEVER: thermal reaction (chilly sensation; slight difficulty in breathing; rapid rise in body temperature).

GENERALITIES: anaphylactic reaction (difficulty in breathing and swallowing; hives; itching, especially of hands or feet; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); **serum sickness** (feeling of discomfort; fever; inflammation of joints; itching; muscle aches; rash; swollen lymph glands); **thermal reaction** (chilly sensation; slight difficulty in breathing; rapid rise in body temperature).

Dipivefrin (Ophthalmic)

Commercial name(s): AKPro; DPE; Ophtho-Dipivefrin; Propine; Propine C Cap BID.

Category: Antiglaucoma agent (ophthalmic).

Conventional indications: Glaucoma, open-angle (treatment); Glaucoma, secondary (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

EYE: hypotension; burning; mydriasis (large pupils); photophobia (increased sensitivity of eyes to light); stinging; adrenochrome deposits in the conjunctiva and cornea; conjunctivitis, follicular (redness, itching, pain, swelling, or other irritation of the eye).

VISION: blurred vision.

CHEST: arrythmias; tachycardia (fast or irregular heartbeat).

GENERALITIES: allergic reaction (itching, pain, redness, or swelling of eye or eyelid, severe; skin rash or hives; watering of eyes, severe and continuing); arrythmias; hypertension (increase in blood pressure); tachycardia (fast or irregular heartbeat).

Dipyridamole (Systemic)

Commercial name(s): *Apo-Dipyridamole FC; Apo-Dipyridamole SC; Novo-Dipiradol; Persantine.*

Category: Platelet aggregation inhibitor; Antithrombotic adjunct; Diagnostic aid adjunct (ischemic heart disease); Myocardial reinfarction prophylactic adjunct.

Conventional indications: Platelet aggregation (prophylaxis); Thromboembolism (prophylaxis adjunct); Myocardial reinfarction (prophylaxis adjunct); Ischemic attacks, transient, in females and males (treatment); Myocardial perfusion imaging, radionuclide, adjunct; Stress echocardiography adjunct.

Primary Actions or Pathogenetic Symptoms

MIND: *depersonalization* (following intravenous administration of dipyridamole for myocardial perfusion imaging).

VERTIGO: **dizziness or lightheadedness** (with intravenous administration for diagnostic use and with chronic oral therapy).

HEAD: **headache** (with intravenous administration for diagnostic use; less frequent with chronic oral therapy); *alopecia* (hair loss) (with oral administration); *ischemia, cerebral, transient* (with intravenous administration for diagnostic use); *migraine* (headache, severe and throbbing) (with intravenous administration for diagnostic use).

EYE: *pain* (following intravenous administration of dipyridamole for myocardial perfusion imaging).

NOSE: *rhinitis* (runny nose; sneezing) (with oral administration).

MOUTH: *dysgeusia* (following intravenous administration of dipyridamole for myocardial perfusion imaging).

THROAT: *pharyngitis* (following intravenous administration of dipyridamole for myocardial perfusion imaging).

STOMACH: *nausea* (with intravenous administration for diagnostic use); *vomiting* (with high doses).

ABDOMEN: **cramping, abdominal** (with chronic oral administration or with high doses); **discomfort, abdominal** (with chronic oral administration or with high doses); *cholelithiasis* (with oral administration); *dysfunction, liver, including hepatitis* (yellow eyes or skin) (with oral administration).

RECTUM: **diarrhea; pain, perineal area** (following intravenous administration of dipyridamole for myocardial perfusion imaging).

KIDNEYS: *pain* (following intravenous administration of dipyridamole for myocardial perfusion imaging).

LARYNX AND TRACHEA: *edema, larynx* (tightness or swelling of neck) (with oral administration).

RESPIRATION: *dyspnea* (difficult or labored breathing) (with intravenous administration for diagnostic use); *bronchospasm, which may be severe* (shortness of breath; troubled breathing; tightness in chest; wheezing) (with intravenous administration for diagnostic use); *hyperventilation* (with intravenous administration for diagnostic use).

CHEST: **extrasystoles** (with intravenous administration for diagnostic use); *tachycardia* (fast heartbeat) (with intravenous administration for diagnostic use); *arrest, cardiac* (with intravenous administration for diagnostic use); *arrhythmias* (ventricular fibrillation, ventricular tachycardia, bradycardia, atrial fibrillation, supraventricular tachycardia,

atrioventricular block or other heart block, and syncope) (with intravenous administration for diagnostic use); *bronchospasm*, *which may be severe* (shortness of breath; troubled breathing; tightness in chest; wheezing) (with intravenous administration for diagnostic use); *cardiomyopathy* (with intravenous administration for diagnostic use); *edema, pulmonary* (with intravenous administration for diagnostic use; reported in a patient with a history of pulmonary edema); *pain, breasts* (following intravenous administration of dipyridamole for myocardial perfusion imaging); *pain, chest* (with intravenous administration for diagnostic use); *pain, pleural* (sharp pain in either or both sides of the chest) (with intravenous administration for diagnostic use); *palpitation* (fast or irregular heartbeat) (with oral administration).

BACK: *pain* (following intravenous administration of dipyridamole for myocardial perfusion imaging).

EXTREMITIES: *arthritis* (joint pain and/or swelling) (with oral administration); *claudication, intermittent* (following intravenous administration of dipyridamole for myocardial perfusion imaging); *cramping, leg* (following intravenous administration of dipyridamole for myocardial perfusion imaging); *hypertonia* (muscle stiffness) (with intravenous administration for diagnostic use); *hypoesthesia* (decreased sensitivity to touch) (with intravenous administration for diagnostic use); *myalgia* (muscle pain) (with oral administration; or following intravenous administration of dipyridamole for myocardial perfusion imaging).

PERSPIRATION: *diaphoresis* (following intravenous administration of dipyridamole for myocardial perfusion imaging).

SKIN: *allergic reaction* (skin rash; itching) (with intravenous administration for diagnostic use); *alopecia* (hair loss) (with oral administration).

GENERALITIES: *bleeding* (hemorrhage); *extrasystoles* (with intravenous administration for diagnostic use); *blood pressure lability* (dizziness, sweating, or sudden, severe headache) (with intravenous administration for diagnostic use); *flushing*; *hypertension* (with intravenous administration for diagnostic use); *hypotension* (with intravenous administration for diagnostic use; also with oral administration at high doses); *tachycardia* (fast heartbeat) (with intravenous administration for diagnostic use); *weakness*; *alopecia* (hair loss) (with oral administration); *arrhythmias* (ventricular fibrillation, ventricular tachycardia, bradycardia, atrial fibrillation, supraventricular tachycardia, atrioventricular block or other heart block, and syncope) (with intravenous administration for diagnostic use); *arthritis* (joint pain and/or swelling) (with oral administration); *asthenia* (following intravenous administration of dipyridamole for myocardial perfusion imaging); *fatigue* (with oral administration); *hepatitis* (yellow eyes or skin) (with oral administration); *hypertonia* (muscle stiffness) (with intravenous administration for diagnostic use); *hypoesthesia* (decreased sensitivity to touch) (with intravenous administration for diagnostic use); *injection site reactions* (following intravenous administration of dipyridamole for myocardial perfusion imaging); *malaise* (general discomfort; unusual tiredness or weakness) (with oral administration); *myalgia* (muscle pain) (with oral administration); *palpitation* (fast or irregular heartbeat) (with oral administration).

DIAGNOSTIC TESTS: ST-T segment changes (with intravenous administration for diagnostic use); *arrhythmias* (ventricular fibrillation, ventricular tachycardia, bradycardia, atrial fibrillation, supraventricular tachycardia, atrioventricular block or other heart block);

cholelithiasis; electrocardiographic changes (with intravenous administration for diagnostic use).

Secondary Actions or Rebound Effects: *angina pectoris or exacerbation of* (chest pain); *infarction, myocardial*.

Dipyridamole and Aspirin (Systemic)

Commercial name(s): *Aggrenox*.

Category: Platelet aggregation inhibitor.

Conventional indications: Stroke, thromboembolic, recurrent (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *amnesia* (memory loss).

VERTIGO: *syncope* (dizziness light-headedness feeling; faint).

HEAD: *headache; hemorrhage, cerebral, intracranial or subarachnoid* (confusion; difficulty in speaking; slow speech; inability to speak; inability to move arms, legs, or facial muscles; double vision).

HEARING: *tinnitus* (continuing ringing or buzzing or other unexplained noise in ears; hearing loss).

NOSE: *epistaxis* (bloody mucous; unexplained nosebleeds).

MOUTH: *taste loss*.

STOMACH: *dyspepsia* (stomach discomfort upset or pain; heartburn; belching; acid or sour stomach; indigestion); **nausea; pain, abdominal** (stomach or abdomen pain); **vomiting; anorexia** (loss of appetite or weight); *hemorrhage, gastrointestinal or rectal* (bloody or black, tarry stools; blood or coffee ground materials in the vomit; bleeding from the rectum); *gastritis* (burning feeling in chest or stomach tenderness in stomach area stomach upset indigestion).

ABDOMEN: **pain, abdominal** (stomach or abdomen pain); *hemorrhage, gastrointestinal or rectal* (bloody or black, tarry stools; blood or coffee ground materials in the vomit; bleeding from the rectum); *cholelithiasis or jaundice* (abdominal fullness; gaseous abdominal pain; recurrent fever; chills; clay-colored stools; fever; loss of appetite; nausea; abdominal or stomach pain; unusual tiredness or weakness; yellow eyes or skin).

RECTUM: **diarrhea; hemorrhage, gastrointestinal or rectal** (bloody or black, tarry stools; blood or coffee ground materials in the vomit; bleeding from the rectum); *hemorrhoids* (blood in stools; rectal pain or swelling); *melena* (bloody or black tarry stool).

STOOL: *melena* (bloody or black tarry stool).

URINE: *hematuria* (blood in the urine).

RESPIRATION: *asthma* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing).

CHEST: *arrhythmia* (irregular heart beat); *asthma* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *pain, chest*; tachycardia (fast or irregular heartbeat).

BACK: *pain*.

EXTREMITIES: **arthralgia** (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); **arthritis** (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); **myalgia** (muscle pain).

SLEEP: **somnolence** (sleepiness or unusual drowsiness).

SKIN: **purpura** (purple or red spots on skin); **pruritus or urticaria** (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: **bleeding** (hemorrhage); **arthralgia** (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); **anemia** (pale skin; troubled breathing, exertional; unusual bleeding or bruising; unusual tiredness or weakness); **arrhythmia** (irregular heart beat); **arthritis** (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); **asthenia** (loss of strength or energy; muscle pain or weakness; unusual weak feeling); **myalgia** (muscle pain); **seizures** (convulsions); **allergic reaction** (itching, pain, redness, or swelling of eye or eyelid; watering of eyes; troubled breathing or wheezing; severe skin rash or hives; flushing); **arrhythmia** (irregular heart beat); **jaundice** (abdominal fullness; gaseous abdominal pain; recurrent fever; chills; clay-colored stools; fever; loss of appetite; nausea; abdominal or stomach pain; unusual tiredness or weakness; yellow eyes or skin); **hematoma** (collection of blood under skin; deep, dark purple bruise); **hypotension** (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position sudden; sweating; unusual tiredness or weakness); tachycardia (fast or irregular heartbeat); vasodilation effects (warm feeling; flushes; sweating; restlessness; feeling of weakness and dizziness).

DIAGNOSTIC TESTS: **anemia**; **cholelithiasis**; **hematuria**.

Dirithromycin (Systemic)

Commercial name(s): *Dynabac*.

Category: Antibacterial (systemic).

Conventional indications: Bronchitis, bacterial exacerbations (treatment); Legionnaires' disease (treatment); Pharyngitis, streptococcal (treatment); Pneumonia, mycoplasmal (treatment); Pneumonia, *Streptococcus pneumoniae* (treatment); Skin and soft tissue infections (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

STOMACH: disturbances, gastrointestinal (abdominal discomfort or pain; diarrhea; nausea; vomiting).

ABDOMEN: disturbances, gastrointestinal (abdominal discomfort or pain; diarrhea; nausea; vomiting); *Clostridium difficile colitis* (severe abdominal or stomach cramps and pain; abdominal tenderness; watery and severe diarrhea, which may also be bloody; fever).

GENERALITIES: weakness.

Disopyramide (Systemic)

Commercial name(s): *Norpace; Norpace CR; Rythmodan; Rythmodan-LA.*

Category: Antiarrhythmic.

Conventional indications: Arrhythmias, ventricular (treatment); Tachycardia, supraventricular (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness; depression, mental; consciousness, loss of.*

VERTIGO: *dizziness; faintness, feeling of; syncope* (fainting).

HEAD: *headache.*

EYE: *dryness.*

VISION: *blurred vision.*

NOSE: *dryness.*

MOUTH: *dryness.*

THROAT: *dryness.*

STOMACH: *anorexia* (loss of appetite); *bloating; nausea; pain.*

RECTUM: *constipation; diarrhea.*

BLADDER: *urinary retention, frequency, or urgency.*

GENITALIA MALE: *impotence.*

RESPIRATION: *shortness of breath; apnea; respiration, spontaneous, loss of.*

CHEST: *palpitations* (heartbeat sensations); *block, atrioventricular (AV); congestive heart failure, new or worsened* (fast or slow heartbeat; shortness of breath; swelling of feet or lower legs; rapid weight gain); *QRS complex, widening (> 25%) of the; QT interval, prolongation of the; pain, chest; gynecomastia* (enlargement of breasts in males); *fibrillation, ventricular; tachycardia, ventricular; torsades de pointes; asystole; bradycardia; disturbances, cardiac conduction, various types and degrees, such as excessive QRS complex and QT interval widening.*

EXTREMITIES: *weakness, muscle.*

SLEEP: *insomnia* (trouble in sleeping).

FEVER: *fever.*

SKIN: *rash; itching.*

GENERALITIES: *anticholinergic effects* (blurred vision; constipation; dry eyes, mouth, nose, or throat; urinary retention, frequency, or urgency); **fatigue** (unusual tiredness); **palpitations** (heartbeat sensations); *block, atrioventricular (AV); hypotension (with or without congestive heart failure)* (dizziness, lightheadedness, or fainting); *weakness, muscle; agranulocytosis* (sore throat and fever); *hypoglycemia* (anxious feeling; chills; cold sweats; confusion; cool, pale skin; drowsiness; fast heartbeat; headache; hunger, excessive; nausea; nervousness; shakiness; unsteady walk; or unusual tiredness or weakness); *jaundice, cholestatic* (yellow eyes or skin); *tachycardia, ventricular; thrombocytopenia* (may be seen as nosebleeds or bleeding gums); *torsades de pointes; asystole; bradycardia; death; disturbances, cardiac conduction, various types and degrees, such as excessive QRS complex and QT interval widening.*

DIAGNOSTIC TESTS: *agranulocytosis; fibrillation, ventricular; tachycardia, ventricular; hypoglycemia; QRS complex, widening (> 25%) of the; QT interval, prolongation of the; thrombocytopenia; torsades de pointes; asystole; disturbances, cardiac*

conduction, various types and degrees, such as excessive QRS complex and QT interval widening.

Secondary Actions or Rebound Effects: *arrhythmia, worsening of the.*

Disulfiram (Systemic)

Commercial name(s): *Antabuse.*

Category: Alcohol-abuse deterrent.

Conventional indications: Alcoholism (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *psychotic reaction* (mood or mental changes).

HEAD: *headache.*

EYE: *neuritis, optic* (eye pain or tenderness or any change in vision).

MOUTH: *taste, metallic or garlic-like.*

ABDOMEN: *necrosis, hepatic, fulminant.*

GENITALIA MALE: *impotence* (decreased sexual ability in males).

EXTREMITIES: *neuritis, peripheral or polyneuritis* (numbness, pain, tingling, or weakness in hands or feet).

SLEEP: *drowsiness.*

SKIN: *skin rash.*

GENERALITIES: *neuritis, peripheral or polyneuritis* (numbness, pain, tingling, or weakness in hands or feet); *neurotoxicity; tiredness, unusual; death* (due to potentially fatal hepatitis); *encephalopathy* (mental changes); *hepatitis* (yellow eyes or skin; darkening of urine; light gray-colored stools; severe stomach pain).

Diuretics, Loop (Systemic)

Commercial name(s): *Apo-Furosemide; Bumex; Edecrin; Furoside; Lasix; Lasix Special; Myrosemide; Novosemide; Uritol.*

Category: Diagnostic aid adjunct (renal disease) [Furosemide]; Diuretic [Bumetanide; Ethacrynic Acid; Furosemide]; Antihypertensive [Bumetanide; Ethacrynic Acid; Furosemide]; Antihypercalcemic [Bumetanide; Ethacrynic Acid; Furosemide].

Conventional indications: Edema (treatment) [Bumetanide, ethacrynic acid, and furosemide]; Hypertension (treatment) [Bumetanide, ethacrynic acid, and furosemide]; Hypercalcemia (treatment) [Bumetanide, ethacrynic acid, and furosemide]; Renography, adjunct and Renal imaging, radionuclide, adjunct [Furosemide].

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; nervousness.*

VERTIGO: *hypotension, orthostatic, as a result of massive diuresis* (dizziness or lightheadedness when getting up from a lying or sitting position).

HEAD: *headache.*

VISION: *blurred vision; xanthopsia* (yellow vision).

EAR: *ototoxicity* (ringing or buzzing in ears or any loss of hearing; usually transient, but permanent deafness has occurred, especially in patients receiving other ototoxic drugs) (more frequent with renal function impairment and in rapid parenteral administration of large doses).

HEARING: *ototoxicity* (ringing or buzzing in ears or any loss of hearing; usually transient, but permanent deafness has occurred, especially in patients receiving other ototoxic drugs) (more frequent with renal function impairment and in rapid parenteral administration of large doses).

STOMACH: *appetite, loss of* (more frequent with Ethacrynic acid); *cramps; pain; bleeding, gastrointestinal* (black, tarry stools; associated with parenteral use).

ABDOMEN: *bleeding, gastrointestinal* (black, tarry stools; associated with parenteral use); *dysfunction, hepatic* (yellow eyes or skin); *pancreatitis* (severe stomach pain with nausea and vomiting).

RECTUM: *diarrhea* (more frequent with Ethacrynic acid); *bleeding, gastrointestinal* (black, tarry stools; associated with parenteral use).

BLADDER: *urination, frequent.*

KIDNEYS: *nephrocalcinosis* (with Furosemide administration if hypercalciuria is present); *nephrolithiasis* (with Furosemide administration if hypercalciuria is present).

URINE: *copious (increased) urine; blood in urine.*

GENITALIA MALE: *ejaculation, premature; erection, difficulty in keeping an*

CHEST: *pain, chest.*

EXTREMITIES: *gout* (joint pain, lower back or side pain).

SKIN: *sensitivity of skin to sunlight, increased; allergic reaction* (skin rash).

GENERALITIES: *hypocalcemia; hypotension; hypotension, orthostatic, as a result of massive diuresis* (dizziness or lightheadedness when getting up from a lying or sitting position); *hyponatremia, hypochloremic alkalosis, and hypokalemia* (usually not symptomatic; symptoms include dry mouth, increased thirst, irregular heartbeat, mood or mental changes, muscle cramps or pain, nausea or vomiting, unusual tiredness or weakness, weak pulse); *agranulocytosis* (fever or chills, cough or hoarseness, lower back or side pain, painful or difficult urination); *gout* (joint pain, lower back or side pain); *irritation, local* (redness or pain at site of injection); *leukopenia* (fever or chills, cough or hoarseness, lower back or side pain, painful or difficult urination); *pancreatitis* (severe stomach pain with nausea and vomiting); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin).

DIAGNOSTIC TESTS: *hypocalcemia; hyponatremia, hypochloremic alkalosis, and hypokalemia; agranulocytosis; blood in urine; leukopenia; nephrocalcinosis; nephrolithiasis; thrombocytopenia.*

Diuretics, Potassium-sparing (Systemic)

Commercial name(s): *Aldactone; Dyrenium; Midamor; Novospiroton.*

Category: Diuretic [Amiloride; Spironolactone; Triamterene]; Antihypertensive [Amiloride; Spironolactone; Triamterene]; Aldosterone antagonist [Spironolactone];

Diagnostic aid (primary hyperaldosteronism) [Spironolactone]; Antihypokalemic [Amiloride; Spironolactone; Triamterene].

Conventional indications: Edema (treatment) [Amiloride, spironolactone, and triamterene]; Hypertension (treatment adjunct) [Amiloride, spironolactone, and triamterene]; Hyperaldosteronism, primary (diagnosis and treatment) [Spironolactone]; Hypokalemia (prophylaxis and treatment) [Amiloride, spironolactone, and triamterene]; Congestive heart failure (treatment adjunct) [Spironolactone]; Polycystic ovary syndrome (treatment) [Spironolactone]; Hirsutism, female (treatment) [Spironolactone].

Primary Actions or Pathogenetic Symptoms

MIND: *clumsiness*.

VERTIGO: *dizziness*.

HEAD: *headache*.

STOMACH: *irritation, gastrointestinal* (nausea or vomiting, stomach cramps and diarrhea) (more frequent with Spironolactone).

ABDOMEN: *irritation, gastrointestinal* (nausea or vomiting, stomach cramps and diarrhea) (more frequent with Spironolactone).

RECTUM: *constipation*.

BLADDER: *urination, frequent*.

KIDNEYS: *nephrolithiasis* (severe lower back or side pain).

URINE: *copious (increased) urine*.

GENITALIA MALE: *sexual ability, decreased*.

GENITALIA FEMALE: *sexual ability, decreased*.

EXTREMITIES: *clumsiness; cramps, muscle*.

SKIN: *sensitivity of skin to sunlight, increased*.

GENERALITIES: *aldosterone antagonist* (hypoaldosteronism, adrenal cortical insufficiency); *hyperkalemia* (confusion; irregular heartbeat; nervousness; numbness or tingling in hands, feet, or lips; shortness of breath or difficult breathing; unusual tiredness or weakness; weakness or heaviness of legs); *hypotension*; *antiandrogenic or endocrine effect* (breast tenderness in females, deepening of voice in females, enlargement of breasts in males, inability to have or keep an erection, increased hair growth in females, irregular menstrual periods, sweating); *cramps, muscle*; *hyponatremia* (drowsiness, dryness of mouth, increased thirst, lack of energy); *agranulocytosis* (fever or chills, cough or hoarseness, lower back or side pain, painful or difficult urination); *allergic reaction or anaphylaxis* (shortness of breath, skin rash or itching); *megaloblastosis or megaloblastic anemia* (bright red tongue; burning, inflamed feeling in tongue; cracked corners of mouth; weakness); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin).

DIAGNOSTIC TESTS: *hyperkalemia; hyponatremia; agranulocytosis; megaloblastosis or megaloblastic anemia; nephrolithiasis; thrombocytopenia*.

Diuretics, Potassium-sparing, and Hydrochlorothiazide (Systemic)

Commercial name(s): *Aldactazide; Apo-Triazide; Dyazide; Maxzide; Moduret; Moduretic; Novo-Spirozine; Novo-Triamzide; Spirozide.*

Category: Antihypertensive; Antihypokalemic; Diuretic.

Conventional indications: Edema (treatment); Hypertension (treatment) [Spironolactone and hydrochlorothiazide, triamterene and hydrochlorothiazide, and amiloride and hydrochlorothiazide]; Hypokalemia (treatment) [Amiloride and hydrochlorothiazide, triamterene and hydrochlorothiazide, and spironolactone and hydrochlorothiazide combinations].

Primary Actions or Pathogenetic Symptoms

VERTIGO: hypotension, orthostatic (dizziness or lightheadedness when getting up from a lying or sitting position).

HEAD: headache.

STOMACH: **anorexia** (loss of appetite) (less frequent with triamterene and hydrochlorothiazide combination); **cramps** (less frequent with triamterene and hydrochlorothiazide combination); **nausea** (less frequent with triamterene and hydrochlorothiazide combination); **upset stomach** (less frequent with triamterene and hydrochlorothiazide combination); **vomiting** (less frequent with triamterene and hydrochlorothiazide combination).

ABDOMEN: *cholecystitis or pancreatitis* (severe stomach pain with nausea and vomiting); *impairment, hepatic function* (yellow eyes or skin).

RECTUM: **diarrhea** (less frequent with triamterene and hydrochlorothiazide combination); constipation [Amiloride].

BLADDER: *urination, frequent.*

URINE: *copious (increased) urine.*

GENITALIA MALE: sexual ability, decreased.

GENITALIA FEMALE: sexual ability, decreased.

EXTREMITIES: *gout* (joint pain); *hyperuricemia* (joint pain).

SKIN: photosensitivity (increased sensitivity of skin to sunlight); *allergic reaction* (skin rash or hives).

GENERALITIES: *hypotension; hypotension, orthostatic* (dizziness or lightheadedness when getting up from a lying or sitting position); *agranulocytosis* (fever or chills; cough or hoarseness); *antiandrogenic or endocrine effects* (breast tenderness in females; deepening of voice in females; enlargement of breasts in males; increased hair growth in females; irregular menstrual periods; sweating); *gout* (joint pain); *hyperuricemia* (joint pain); *hypokalemia, or hyponatremia* (confusion; dryness of mouth; increased thirst; irregular heartbeat; mood or mental changes; muscle cramps or pain; numbness or tingling in hands, feet, or lips; shortness of breath or difficulty breathing; unusual tiredness or weakness; weak pulse; weakness or heaviness of legs); *megaloblastosis or megaloblastic anemia* (bright red tongue; burning, inflamed feeling in tongue; cracked corners of mouth; weakness) (for Triamterene and Hydrochlorothiazide combination); *pancreatitis* (severe stomach pain with nausea and vomiting); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin).

DIAGNOSTIC TESTS: *hyperkalemia; agranulocytosis; hypokalemia, or hyponatremia; hyperuricemia; megaloblastosis or megaloblastic anemia; thrombocytopenia.*

Diuretics, Thiazide (Systemic)

Commercial name(s): *Apo-Chlorthalidone; Apo-Hydro; Aquatensen; Diucardin; Diuchlor H; Diulo; Diuril; Duretic; Enduron; Esidrix; Hydro-D; Hydro-chlor; HydroDiuril; Hydromox; Hygroton; Metahydrin; Microzide; Mykrox; Naqua; Naturetin; Neo-Codema; Novo-Hydrazide; Novo-Thalidone; Oretic; Renese; Saluron; Thalitone; Trichlorex; Uridon; Urozide; Zaroxolyn.*

Category: Diuretic; Antihypertensive; Antidiuretic (central and nephrogenic diabetes insipidus); Antiurolithic (calcium calculi).

Conventional indications: Edema (treatment); Hypertension (treatment); Diabetes insipidus, central or nephrogenic (treatment); Renal calculi, calcium (prophylaxis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: hypotension, orthostatic (dizziness or lightheadedness when getting up from a lying or sitting position).

STOMACH: anorexia (loss of appetite); upset stomach.

ABDOMEN: *cholecystitis or pancreatitis* (severe stomach pain with nausea and vomiting); *impairment, hepatic function* (yellow eyes or skin).

RECTUM: diarrhea.

BLADDER: *urination, frequent*.

URINE: *copious (increased) urine*.

GENITALIA MALE: sexual ability, decreased.

GENITALIA FEMALE: sexual ability, decreased.

EXTREMITIES: *gout* (joint pain, lower back or side pain); *hyperuricemia* (joint pain, lower back or side pain).

SKIN: photosensitivity (increased sensitivity of skin to sunlight); *allergic reaction* (skin rash or hives).

GENERALITIES: *hypotension; alkalosis, hypochloremic* (dryness of mouth; increased thirst; irregular heartbeat; mood or mental changes; muscle cramps or pain; nausea or vomiting; unusual tiredness or weakness; weak pulse); *hypokalemia* (dryness of mouth; increased thirst; irregular heartbeat; mood or mental changes; muscle cramps or pain; nausea or vomiting; unusual tiredness or weakness; weak pulse); *hyponatremia* (confusion; convulsions; decreased mentation; fatigue; irritability; muscle cramps); hypotension, orthostatic (dizziness or lightheadedness when getting up from a lying or sitting position); *agranulocytosis* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *gout* (joint pain, lower back or side pain); *hyperuricemia* (joint pain, lower back or side pain); *pancreatitis* (severe stomach pain with nausea and vomiting); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin).

DIAGNOSTIC TESTS: *alkalosis, hypochloremic, hypokalemia, hyponatremia, agranulocytosis, hyperuricemia, thrombocytopenia*.

Docetaxel (Systemic)

Commercial name(s): *Taxotere*.

Category: Antineoplastic.

Conventional indications: Carcinoma, breast (treatment); Carcinoma, breast, node-positive (treatment adjunct); Carcinoma, lung, non-small cell (treatment); Carcinoma, prostate (treatment); Carcinomas, esophageal (treatment); Carcinomas, gastric (treatment); Carcinoma, lung, small cell (treatment); Carcinoma, ovarian (treatment); Carcinoma, head and neck (treatment); Carcinoma, bladder (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion* (mood or mental changes); *consciousness, loss of, transient*.

VERTIGO: *gait, disturbances in; syncope* (fainting).

HEAD: *alopecia* (loss of hair); *headache*.

EYE: *conjunctivitis* (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing); *lacrimation with or without conjunctivitis* (tearing of the eyes); *tearing, excessive*.

VISION: *disturbances, visual, transient* (blurred or loss of vision; disturbed color perception; night blindness; double vision; tunnel vision; halos around lights; overbright appearance of lights).

NOSE: *epistaxis* (bloody nose).

MOUTH: *stomatitis* (sores or ulcers on lips or tongue or inside the mouth); *disturbance, taste; perversion, taste*.

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); *esophagitis* (difficulty in swallowing; pain or burning in throat; chest pain; heartburn; vomiting; sores, ulcers, or white spots on lips or tongue or inside the mouth).

STOMACH: *nausea; vomiting; anorexia* (loss of appetite; weight loss); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); *pain, abdominal* (stomach pain); *perforation, gastrointestinal* (severe pain in abdomen; fever; nausea; vomiting).

ABDOMEN: *ascites; colitis* (stomach cramps, tenderness, or pain; watery or bloody diarrhea; fever); *colitis, ischemic* (abdominal pain and tenderness; bloody stools; rectal bleeding); *enteritis; enterocolitis, neutropenic* (abdominal pain, cramping, or tenderness; diarrhea; vomiting nausea; fever; chills; muscle pain); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); *ileus* (abdominal pain; severe constipation; severe vomiting); *impairment, hepatic function; obstruction, intestinal* (abdominal pain; severe constipation; nausea; vomiting); *pain, abdominal* (stomach pain); *perforation, gastrointestinal* (severe pain in abdomen; fever; nausea; vomiting); *ulcer, duodenal* (burning upper abdominal pain; loss of appetite; nausea; vomiting).

RECTUM: *diarrhea; constipation* (difficulty having a bowel movement [stool]); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

KIDNEYS: *insufficiency, renal* (lower back/side pain; decreased frequency /amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure).

GENITALIA FEMALE: *amenorrhea*.

RESPIRATION: *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); *pneumonia, interstitial* (cough; difficult breathing; fever; shortness of breath); *respiratory distress syndrome, acute* (blue lips, fingernails, or skin; difficult or fast breathing).

COUGH: *cough*.

CHEST: *left ventricular function, cardiac; angina, unstable* (chest pain); *congestive heart failure; dysrhythmias, cardiac; edema, pulmonary, acute* (chest pain; difficult, fast, noisy breathing, sometimes with wheezing; blue lips and fingernails; pale skin; increased sweating; coughing that sometimes produces a pink frothy sputum; shortness of breath; swelling in legs and ankles); *effusions, pericardial; effusions, pleural; embolism, pulmonary* (anxiety; chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness); *fibrillation, atrial* (fast or irregular heartbeat; dizziness; fainting); *fibrosis, pulmonary* (fever; troubled or quick, shallow breathing; unusual tiredness or weakness; loss of appetite and weight; chest discomfort); *flutter, atrial; heart failure* (shortness of breath; swelling of face, fingers, feet, or lower legs); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); *pain, chest; pneumonia, interstitial* (cough; difficult breathing; fever; shortness of breath); *tachycardia, atrial, paroxysmal* (fast or irregular heartbeat); *tachycardia, sinus*.

EXTREMITIES: *arthralgia* (pain in joints); *edema, peripheral* (swelling of hands, ankles, feet, or lower legs); *myalgia* (pain in muscles); *hand and foot syndrome, severe* (blistering, peeling, redness, and/or swelling of palms of hands or bottoms of feet; numbness, pain, tingling, or unusual sensations in palms of hands or bottoms of feet); *thrombophlebitis* (changes in skin color; pain, tenderness, swelling of foot or leg); *thrombosis, deep vein* (pain, redness, or swelling in arm or leg); neuropathy, peripheral (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet).

NAILS: *disorder, nail* (discoloration of fingernails or toenails; rarely, loosening or loss of nails and pain).

FEVER: *fever* (not always associated with infection).

SKIN: *alopecia* (loss of hair); **cutaneous reaction, mild** (skin rash or redness); *cutaneous reaction, severe* (red, scaly, swollen, or peeling areas of skin; especially likely to occur on the hands and/or feet); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *necrolysis, epidermal, toxic* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *rash/desquamation; toxicity, skin*.

GENERALITIES: *anemia* (unusual tiredness or weakness); **alopecia** (loss of hair); **asthenia** (weakness); **leukopenia; neutropenia; paresthesias or dysesthesias** (burning,

numbness, tingling, or painful sensations); **retention, fluid** (more commonly, swelling of fingers, hands, feet, or lower legs; less commonly, swelling of abdomen or face; noisy, rattling breathing or troubled breathing while at rest; weight gain); allergic reaction (cough; difficulty swallowing; dizziness; fast heartbeat; hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); arthralgia (pain in joints); fatigue (unusual tiredness or weakness); hypersensitivity reaction, mild (back pain; flushing; skin rash or itching, localized; troubled breathing, mild); infusion site reactions (dry, red, hot, or irritated skin; pain; or swelling or lump under the skin at place of injection); myalgia (pain in muscles); neutropenia, febrile, or other infection (fever with or without chills; cough or hoarseness; difficult or painful urination; lower back or side pain); thrombocytopenia (rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); bleeding episode; death; dehydration (confusion; decreased urination; dizziness; dry mouth; fainting; increase in heart rate; lightheadedness; rapid breathing; sunken eyes; thirst; unusual tiredness or weakness; wrinkled skin); dysrhythmias, cardiac; enterocolitis, neutropenic (abdominal pain, cramping, or tenderness; diarrhea; vomiting nausea; fever; chills; muscle pain); erythema multiforme (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); hepatitis (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); hypersensitivity reaction, severe (decrease in blood pressure, sudden and severe; shortness of breath, troubled breathing, tightness in chest, or wheezing; hives, skin rash, or redness, generalized); hypertension (increase in blood pressure; dizziness; headaches); hypotension (dizziness; fainting); infarction, myocardial (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); infection; leukemia, myeloid, acute; lymphedema; neuropathy motor, neuro-cerebellar, neuro-cortical or sensory; pain, diffuse (pain all over body); radiation recall phenomenon (pain and redness of skin at place of earlier radiation treatment); respiratory distress syndrome, acute (blue lips, fingernails, or skin; difficult or fast breathing); seizures (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); Stevens-Johnson syndrome (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); tachycardia, sinus; thrombosis, deep vein (pain, redness, or swelling in arm or leg); thrombophlebitis (changes in skin color; pain, tenderness, swelling of foot or leg); vasodilatation; weight gain; anemia (unusual tiredness or weakness; leukopenia or neutropenia, with or without infection (fever with or without chills; cough or hoarseness; lower back or side pain; painful or difficult urination)); suppression, bone marrow.

DIAGNOSTIC TESTS: **anemia**; **leukopenia**; **neutropenia**; thrombocytopenia; abnormalities, ECG; fibrillation, atrial; flutter, atrial; suppression, bone marrow.

Docosanol (Topical)

Commercial name(s): *Abreva*.

Category: Antiviral (topical).

Conventional indications: Oral-facial herpes simplex (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

FACE: *acne*.

SKIN: *acne*; dry skin; pruritus (itching); rash.

GENERALITIES: application site reaction (burning, itching, redness, skin rash, swelling, or soreness at site of application).

Dofetilide (Systemic)

Commercial name(s): *Tikosyn*.

Category: Antiarrhythmic.

Conventional indications: Arrhythmias, atrial (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness; syncope (fainting).

HEAD: headache; ischemia, cerebral, or cerebrovascular accident (sudden numbness or tingling of the hands, feet, or face; paralysis; confusion; weakness; slurred speech); migraine.

FACE: angioedema (swelling of the face, lips); edema (swelling of face); paralysis, facial.

MOUTH: angioedema (swelling of the tongue).

THROAT: angioedema (swelling of the throat).

STOMACH: nausea; pain.

ABDOMEN: damage, liver (yellow eyes or skin); pain, abdominal.

RECTUM: diarrhea.

RESPIRATION: dyspnea (shortness of breath); infection, respiratory tract (cough; fever; sneezing; sore throat; flu-like symptoms).

COUGH: cough, increased.

CHEST: **arrhythmias, ventricular; tachycardia, ventricular; torsade de pointes** (dizziness; fainting; fast or irregular heartbeat); arrest, heart; block, atrioventricular (chest pain; dizziness; fainting; pounding, slow heartbeat; troubled breathing; unusual tiredness or weakness); bradycardia (slow heartbeat); fibrillation, ventricular (fainting; fast, slow, or irregular heartbeat; shortness of breath; unusual tiredness or weakness); infarct, myocardial (crushing chest pain; unexplained shortness of breath); pain, chest; block, bundle branch; block, heart (slow or irregular heartbeat); arrest, cardiac and ventricular fibrillation (fainting; fast, slow, or irregular heartbeat; shortness of breath; unusual tiredness or weakness; occurring 2 hours in a patient who received two 500 mcg doses one hour apart).

BACK: pain.

EXTREMITIES: angioedema (swelling of the arms, legs); edema (swelling of fingers, ankles, feet, or lower legs); paralysis, flaccid.

SLEEP: insomnia (trouble sleeping).

SKIN: *rash*.

GENERALITIES: *arrhythmias, ventricular; tachycardia, ventricular; torsade de pointes* (dizziness; fainting; fast or irregular heartbeat); *angioedema* (swelling of the arms, face, legs, lips, tongue, and/or throat); *bradycardia* (slow heartbeat); *edema* (swelling of face, fingers, ankles, feet, or lower legs; weight gain); *flu syndrome* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *infarct, myocardial* (crushing chest pain; unexplained shortness of breath); *infection, respiratory tract* (cough; fever; sneezing; sore throat; flu-like symptoms); *injury, accidental; paralysis, flaccid; paresthesia* (numbness or tingling of hands, feet, or face); *block, bundle branch; block, heart* (slow or irregular heartbeat).

DIAGNOSTIC TESTS: *arrhythmias, ventricular; tachycardia, ventricular; torsade de pointes*; QT interval, excessive prolongation of the.

Dolasetron (Systemic)

Commercial name(s): *Anzemet*.

Category: Antiemetic.

Conventional indications: Nausea and vomiting, cancer chemotherapy-induced (prophylaxis) [Dolasetron injection]; Nausea and vomiting, postoperative (prophylaxis) [Dolasetron injection and tablets]; Nausea and vomiting, postoperative (treatment) [Dolasetron injection].

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness; lightheadedness*.

HEAD: *headache*.

FACE: *edema* (swelling of face).

STOMACH: *pain*.

ABDOMEN: *pain, abdominal; pancreatitis* (severe stomach pain with nausea and vomiting).

RECTUM: *diarrhea*.

BLADDER: *oliguria* (decrease in amount of urine); *retention, urinary* (painful urination or trouble in urinating).

URINE: *hematuria* (blood in urine).

RESPIRATION: *bronchospasm* (troubled breathing).

CHEST: *bradycardia or palpitations* (slow or irregular heartbeat); *bronchospasm* (troubled breathing); *pain, chest; tachycardia* (fast heartbeat); ECG effects, including QRS widening and PR, QT_c and JT prolongation.

EXTREMITIES: *edema* (swelling of feet or lower legs).

CHILL: *chills*.

FEVER: *fever*.

GENERALITIES: *fatigue* (unusual tiredness); *hypertension; hypotension; anaphylactic reaction* (skin rash, hives, and/or itching; troubled breathing); *bradycardia or palpitations*

(slow or irregular heartbeat); *pain*; *pancreatitis* (severe stomach pain with nausea and vomiting); *tachycardia* (fast heartbeat); ECG effects, including QRS widening and PR, QT_c and JT prolongation.

DIAGNOSTIC TESTS: *hematuria*; ECG effects, including QRS widening and PR, QT_c and JT prolongation.

Domperidone (Systemic)

Commercial name(s): *Motilium*.

Category: Antiemetic; Dopaminergic blocking agent.

Conventional indications: Gastritis, chronic and subacute (treatment); Gastroparesis, diabetic (treatment); Gastrointestinal symptoms due to dopamine agonist therapy (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *irritability*; *lethargy* (drowsiness; mental dullness; sluggishness; tiredness; weakness); *nervousness*; disorientation (confusion).

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *conjunctivitis* (itching, redness, pain, or swelling of eye).

FACE: *edema* (swelling of face).

MOUTH: *dryness*; *stomatitis* (swelling of the mouth).

STOMACH: *appetite, change in*; *heartburn*; *thirst*.

ABDOMEN: *cramps, abdominal*.

RECTUM: *constipation*; *diarrhea*.

BLADDER: *dysuria* (burning, difficult, or painful urination); *urinary frequency, change in*.

GENITALIA FEMALE: *irregularities, menstrual*.

CHEST: *galactorrhea* (breast milk flowing from the nipple); *gynecomastia* (excessive development of the breast in the male); *mastalgia* (pain in the breast); *palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); arrhythmias (dizziness, fainting, fast, slow, or irregular heartbeat).

EXTREMITIES: *cramps, leg*; *edema* (swelling of hands, lower legs, or feet).

SLEEP: drowsiness.

SKIN: *pruritus* (itching); *rash*; *urticaria* (hives).

GENERALITIES: *hot flushes*; *asthenia* (lack or loss of strength); *extrapyramidal effects* (difficulty in speaking; loss of balance or muscle control); *palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); arrhythmias (dizziness, fainting, fast, slow, or irregular heartbeat); hypotension (dizziness, faintness, or light-headedness when getting up from a lying or sitting position).

Donepezil (Systemic)

Commercial name(s): *Aricept*; *Aricept ODT*.

Category: Dementia symptoms treatment adjunct.

Conventional indications: Dementia, Alzheimer's type, mild to moderate (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental*; *aphasia* (problems with speech); *aggression*; *agitation*; *confusion* (mood or mental changes); *crying, abnormal*; *delusions*; *hallucinations* (seeing, hearing, or feeling things that are not there); *irritability*; *mood or mental changes*; *nervousness*; *restlessness*. (rebound effect?)

VERTIGO: *dizziness*; *syncope* (fainting); *vertigo*.

HEAD: *headache*.

EYE: *cataract*; *irritation*.

VISION: *blurred vision*.

MOUTH: *salivation*, increased (increased watering of mouth).

THROAT: *pharyngitis* (sore throat).

STOMACH: *anorexia* (loss of appetite); **nausea**; **vomiting**; *bleeding, gastrointestinal* (black, tarry stools); *pain, abdominal* (stomach pain); *pain, epigastric* (pain in upper stomach, chest, or throat).

ABDOMEN: *bloating*; *cholecystitis* (indigestion; stomach pain; severe nausea; vomiting); *pain, abdominal* (stomach pain); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: **diarrhea**; *constipation*; *bleeding, gastrointestinal* (black, tarry stools); *incontinence, fecal* (loss of bowel control).

BLADDER: *urination, frequent*; *incontinence, urinary* (loss of bladder control); *infection, urinary tract* (bloody or cloudy urine; difficult or painful urination; frequent urge to urinate); *nocturia* (increased urge to urinate during the night).

KIDNEYS: *infection, urinary tract* (bloody or cloudy urine; difficult or painful urination; frequent urge to urinate).

GENITALIA MALE: *libido, increased* (increase in sexual desire or performance).

GENITALIA FEMALE: *libido, increased* (increase in sexual desire or performance).

RESPIRATION: *bronchitis* (cough; shortness of breath; tightness in chest; wheezing); *dyspnea* (troubled breathing); *infection, upper respiratory* (chills; cough; fever; nasal congestion; runny nose; sneezing; sore throat); *depression, respiratory* (troubled breathing).

CHEST: *block, heart (all types)* (chest pain or discomfort; fainting; shortness of breath; slow or irregular heartbeat; sweating); *bronchitis* (cough; shortness of breath; tightness in chest; wheezing); *fibrillation, atrial* (irregular heartbeat; dizziness; fainting); *pain, chest*; *bradycardia* (slow heartbeat).

EXTREMITIES: **cramps, muscle**; *arthritis* (joint pain, stiffness, or swelling); *ataxia* (clumsiness or unsteadiness); *weakness, muscle*, increasing.

SLEEP: **insomnia** (trouble in sleeping); *somnolence* (drowsiness) (rebound effect?).

DREAMS: *abnormal dreams*.

PERSPIRATION: *diaphoresis* (increased sweating).

SKIN: *hot flashes*; *pruritus* (itching); *rash*; *urticaria* (hives).

GENERALITIES: **fatigue** (unusual tiredness or weakness); **cramps, muscle**; *arthritis* (joint pain, stiffness, or swelling); *ecchymosis* (unusual bleeding or bruising); *pain*; *weight*

loss; *anemia*, *hemolytic* (back, leg, or stomach pains; bleeding gums; chills; dark urine; difficulty breathing; fatigue; fever; general body swelling; headache; loss of appetite; nausea or vomiting; nosebleeds; pale skin; sore throat; yellowing of the eyes or skin); *block, heart (all types)* (chest pain or discomfort; fainting; shortness of breath; slow or irregular heartbeat; sweating); *convulsions* (seizures); *dehydration* (confusion; decrease in urination; dizziness; dryness of mouth; increase in heart rate and breathing; low blood pressure; severe thirst; sunken eyes; unusual tiredness or weakness; wrinkled skin); *hepatitis* (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); *hypertension* (high blood pressure); *hyponatremia* (coma; confusion; convulsions; decreased urine output; dizziness; fast or irregular heartbeat; headache; increased thirst; muscle pain or cramps; nausea or vomiting; shortness of breath; swelling of face, ankles, or hands; unusual tiredness or weakness); *hypotension* (low blood pressure); *infection, upper respiratory* (chills; cough; fever; nasal congestion; runny nose; sneezing; sore throat); *neuroleptic malignant syndrome* (convulsions; difficulty in breathing; fast heartbeat; high fever; high or low blood pressure; increased sweating; loss of bladder control; severe muscle stiffness; unusually pale skin; tiredness); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); *paresthesia* (burning, prickling, or tingling sensations); *tremor*; *vasodilation* (flushing of skin); bradycardia (slow heartbeat); death (due to increasing muscle weakness, if respiratory muscles are involved); seizures; weakness, muscle, increasing.

DIAGNOSTIC TESTS: *anemia, hemolytic; block, heart (all types); hyponatremia.*

Dornase Alfa (Inhalation-Local)

Commercial name(s): *Pulmozyme.*

Category: Cystic fibrosis therapy adjunct.

Conventional indications: Cystic fibrosis (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

EYE: *conjunctivitis* (redness, itching, pain, swelling, or other irritation of eyes).

NOSE: *rhinitis* (runny or stuffy nose).

THROAT: hoarseness; sore throat.

STOMACH: *dyspepsia* (upset stomach).

RESPIRATION: *dyspnea* (difficulty breathing).

CHEST: discomfort; pain, chest; *forced vital capacity (FVC), decrease in.*

FEVER: *fever.*

SKIN: skin rash; *urticaria, mild to moderate, transient* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *forced vital capacity (FVC), decrease in.*

DIAGNOSTIC TESTS: *forced vital capacity (FVC), decrease in.*

Dorzolamide (Ophthalmic)

Commercial name(s): *Trusopt*.

Category: Antiglaucoma agent (ophthalmic).

Conventional indications: Glaucoma, open-angle (treatment); Hypertension, ocular (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *hypotension; allergic reaction, ocular* (itching, redness, swelling, or other sign of eye or eyelid irritation); **burning, stinging, or discomfort when medicine is applied; keratitis, punctate, superficial** (feeling of something in eye; sensitivity of eyes to light); *conjunctivitis* (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing); *dryness; eyelid reactions; photophobia* (sensitivity of eye to light); *redness; tearing; angioedema* (large, hive-like swelling on eyelids); *crusting, eyelid; detachment, choroidal, following filtration surgery* (change in vision; flashes of light; floaters in vision); *iridocyclitis* (eye pain, tearing, and blurred vision); *pain, ocular* (eye pain).

VISION: *blurred vision; myopia, transient* (blurred vision; change in distance vision; difficulty in focusing eyes).

NOSE: *epistaxis* (bloody nose).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *taste, bitter; angioedema* (large, hive-like swelling on tongue); *dryness*.

THROAT: *angioedema* (large, hive-like swelling on throat); *irritation*.

STOMACH: *nausea*.

ABDOMEN: *necrosis, hepatic, fulminant*.

KIDNEYS: *urolithiasis* (blood in urine; nausea or vomiting; pain in side, back, or abdomen).

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: *bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: *bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing).

EXTREMITIES: *angioedema* (large, hive-like swelling on hands, legs, feet).

SKIN: *dermatitis, contact* (blistering, burning, crusting, dryness, flaking of skin; itching; scaling; severe redness, soreness, swelling of skin); *necrolysis, epidermal, toxic; pruritus* (itching skin); *skin rash; urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *asthenia* (unusual tiredness or weakness); *fatigue* (unusual tiredness or weakness); *agranulocytosis; anemia, aplastic; blood dyscrasias; death; hypersensitivity; paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *Stevens-Johnson syndrome*.

DIAGNOSTIC TESTS: *agranulocytosis; anemia, aplastic; blood dyscrasias; urolithiasis*.

Dorzolamide and Timolol (Ophthalmic)

Commercial name(s): *Cosopt*.

Category: Antiglaucoma agent (ophthalmic).

Conventional indications: Glaucoma, open-angle (treatment); Hypertension, ocular (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental*.

VERTIGO: *dizziness*.

HEAD: *headache; cerebral vascular accident* (headache or weakness, severe and sudden)

EYE: *hypotension; burning or stinging of the eye, transient upon administration of medication; hyperemia, conjunctival* (redness of eye and lining of eyelid); **itching; keratitis, punctate, superficial** (feeling of something in eye; sensitivity of eyes to light); *blepharitis* (redness, swelling or itching of eyelid); *cataract, post-subcapsular; coloration, lens nucleus; conjunctivitis or conjunctival edema or injection* (swelling and/or redness of eye and lining of eyelid); *detachment, vitreous* (seeing flashes or sparks of light; seeing floating spots before the eyes); *discharge, conjunctival* (discharge from eye); *discomfort, eye or eyelid; dryness; edema or erythema, eyelid* (swelling or redness of eyelid); *erosion, corneal* (eye irritation or redness); *exudate/scales, eyelid* (crusting or scales on eyelid); *follicles, conjunctival* (redness and tiny bumps on lining of eyelid); *opacity, cortical lens, lens, or nuclear lens; pain, eye or eyelid; sensation, foreign body* (feeling of something in eye); *staining, corneal; tearing; detachment, choroidal, after filtration procedures; iridocyclitis* (eye redness or pain, tearing, or blurred vision).

VISION: **blurred vision; cloudy vision; defect, visual field** (blurred vision or other change in vision).

NOSE: *sinusitis* (stuffy or runny nose).

MOUTH: **perversion, taste** (bitter, sour, or unusual taste).

THROAT: *pharyngitis* (sore throat).

STOMACH: *dyspepsia* (indigestion or upset stomach); *nausea; pain*.

ABDOMEN: *pain, abdominal; necrosis, hepatic, fulminant*.

RECTUM: *diarrhea*.

BLADDER: *infection, urinary tract* (increased frequency of urination; painful urination).

KIDNEYS: *infection, urinary tract* (increased frequency of urination; painful urination); *urolithiasis* (blood in urine; nausea or vomiting; pain in side, back, or abdomen).

RESPIRATION: *bronchitis* (coughing, shortness of breath, tightness in chest, or wheezing); *infection-like symptoms, upper respiratory* (cold-like symptoms); *dyspnea* (shortness of breath or troubled breathing); *failure, respiratory* (blue lips, fingernails, or skin; difficult or troubled breathing; irregular, fast or slow, or shallow breathing; shortness of breath).

COUGH: *cough*.

CHEST: *bronchitis* (coughing, shortness of breath, tightness in chest, or wheezing); *block, heart* (chest pain or discomfort; fainting; shortness of breath; slow or irregular heartbeat);

sweating); *bradycardia* (slow heartbeat); *failure, cardiac* (chest pain; shortness of breath or troubled breathing); *infarction, myocardial* (chest pain, severe); *pain, chest*; arrest, cardiac.

BACK: *pain*

SKIN: *necrolysis, epidermal, toxic; skin rash*

GENERALITIES: *hypertension* (increased blood pressure); *infection-like symptoms, upper respiratory* (cold-like symptoms); *influenza-like symptoms* (flu-like symptoms); *sinusitis* (stuffy or runny nose); *agranulocytosis; anemia, aplastic; block, heart* (chest pain or discomfort; fainting; shortness of breath; slow or irregular heartbeat; sweating); *blood dyscrasias; bradycardia* (slow heartbeat); *death* (due to bronchospasm in patients with asthma, as well as rare instances in association with cardiac failure); *hypersensitivity; hypotension* (unusual tiredness or weakness; dizziness, lightheadedness, or fainting); *infarction, myocardial* (chest pain, severe); *paresthesia* (pain, numbness, tingling, or burning feeling in hands or feet); *Stevens-Johnson syndrome*; acidosis; imbalance, electrolyte.

DIAGNOSTIC TESTS: *agranulocytosis; anemia, aplastic; block, heart; blood dyscrasias; urolithiasis; acidosis; imbalance, electrolyte.*

Secondary Actions or Rebound Effects: *cupping, glaucomatous.*

Doxacurium (Systemic)

Commercial name(s): *Nuromax.*

Category: Neuromuscular blocking agent.

Conventional indications: Skeletal muscle paralysis.

Primary Actions or Pathogenetic Symptoms

VISION: *double vision.*

RESPIRATION: *bronchospasm; wheezing; apnea.*

CHEST: *bradycardia; bronchospasm.*

EXTREMITIES: *paralysis* (neuromuscular block).

FEVER: *fever.*

SKIN: *flushing; urticaria.*

GENERALITIES: *paralysis* (neuromuscular block); *bradycardia; disturbance, hemodynamic, minimal; flushing; histamine, serum, increased; hypotension; injection site reaction.*

DIAGNOSTIC TESTS: *disturbance, hemodynamic, minimal; histamine, serum, increased.*

Doxapram (Systemic)

Commercial name(s): *Dopram.*

Category: Respiratory stimulant.

Conventional indications: *Respiratory depression (treatment):* Postanesthesia; Respiratory insufficiency, acute, chronic obstructive pulmonary disease (COPD)-associated.

Primary Actions or Pathogenetic Symptoms

MIND: *confusion.*

VERTIGO: *dizziness; lightheadedness.*

HEAD: *headache.*

STOMACH: *hiccups; nausea; vomiting.*

RECTUM: *desire to defecate; diarrhea.*

BLADDER: *urination problems.*

RESPIRATION: *hyperventilation; wheezing.*

COUGH: *coughing.*

CHEST: *heartbeat, fast or irregular; troubled or unusually fast breathing; pain, chest; tightness.*

EXTREMITIES: reflexes, deep tendon, increase in; trembling or uncontrolled movements of the body.

PERSPIRATION: *sweating, increased.*

SKIN: *warmth, unusual, feeling of.*

GENERALITIES: *blood pressure, increase in; heartbeat, fast or irregular; thrombophlebitis* (redness, swelling, or pain at injection site); reflexes, deep tendon, increase in; seizures; trembling or uncontrolled movements of the body.

Doxazosin (Systemic)

Commercial name(s): *Cardura; Cardura XL; Cardura-1; Cardura-2; Cardura-4.*

Category: Antihypertensive; Benign prostatic hyperplasia therapy agent.

Conventional indications: Hypertension (treatment); Benign prostatic hyperplasia (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *irritability, unusual; nervousness; restlessness; agitation* (anxiety; nervousness; restlessness; irritability; dry mouth; shortness of breath; hyperventilation; trouble sleeping; irregular heartbeats; shaking).

VERTIGO: *dizziness; vertigo* (dizziness or lightheadedness); *hypotension, orthostatic* (dizziness or lightheadedness when getting up from a lying or sitting position; sudden fainting); *syncope* (fainting).

HEAD: *headache; alopecia* (hair loss; thinning of hair); *cerebrovascular accidents* (blurred vision; headache, sudden and severe; inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe).

VISION: *blurred vision.*

NOSE: *rhinitis* (runny nose).

FACE: *hot flushes* (feeling of warmth; redness of the face).

EXTERNAL THROAT: *hot flushes* (feeling of warmth; redness of the neck).

STOMACH: *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); *nausea*; *pain, abdominal* (stomach pain); *anorexia* (loss of appetite; weight loss); *vomiting*.

ABDOMEN: *pain, abdominal* (stomach pain).

BLADDER: *dysuria* (difficult or painful urination; burning while urinating); *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *micturition disorder* (trouble in holding or releasing urine; painful urination); *micturition frequency* (change in frequency of urination); *nocturia* (waking to urinate at night; increased urge to urinate during the night); *polyuria* (frequent urination; increased volume of pale, dilute urine).

KIDNEYS: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain)

URINE: *hematuria* (blood in urine).

GENITALIA MALE: *priapism* (painful or prolonged erection of the penis).

RESPIRATION: *dyspnea* (shortness of breath); *infection, respiratory tract* (cough; fever; sneezing; sore throat); *bronchospasm aggravated* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing).

CHEST: *arrhythmias* (irregular heartbeat); *palpitations* (pounding heartbeat); *tachycardia* (fast heartbeat); *bradycardia* (chest pain or discomfort; lightheadedness, dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); *bronchospasm aggravated* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *gynecomastia* (swelling of the breasts or breast soreness in both females and males); *hot flushes* (feeling of warmth; redness of the upper chest); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting).

BACK: *pain*.

EXTREMITIES: *edema, peripheral* (swelling of feet or lower legs); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *cramps, muscle*; *hot flushes* (feeling of warmth; redness of the arms); *weakness, muscle*.

SLEEP: *somnolence* (sleepiness or unusual drowsiness).

SKIN: *alopecia* (hair loss; thinning of hair); *hot flushes* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest); *purpura* (pinpoint red or purple spots on skin); *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); *asthenia* (lack or loss of strength); *tiredness, unusual*; *arrhythmias* (irregular heartbeat); *hypotension, orthostatic* (dizziness or lightheadedness when getting up from a lying or sitting position; sudden fainting); *infection, respiratory tract* (cough; fever; sneezing; sore throat); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *palpitations* (pounding heartbeat); *tachycardia* (fast heartbeat); *alopecia* (hair loss; thinning of hair); *bradycardia* (chest pain or discomfort; lightheadedness, dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); *cramps, muscle*; *fatigue* (unusual tiredness or weakness); *hepatitis* (dark urine; general tiredness and weakness; light-colored stools;

nausea and vomiting; upper right abdominal pain; yellow eyes and skin); *hepatitis cholestatic* (abdominal or stomach pain; chills; clay-colored stools; dark urine; diarrhea; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *hypoesthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); *jaundice* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *hypotensive reaction, orthostatic, first-dose*; *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *malaise* (general feeling of discomfort or illness; unusual tiredness or weakness); *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *weakness, muscle*.

DIAGNOSTIC TESTS: *hematuria; leukopenia; liver function tests, abnormal; thrombocytopenia.*

Doxepin (Topical)

Commercial name(s): *Zonalon.*

Category: Antipruritic (topical).

Conventional indications: Pruritus associated with eczema (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: emotional changes; *anxiety*; coma (unconsciousness); stupor (decreased awareness or responsiveness).

VERTIGO: dizziness.

HEAD: headache.

EYE: dilated pupils (enlarged pupils).

VISION: blurred vision.

FACE: dryness of lips.

MOUTH: dryness; taste, changes in.

STOMACH: thirst; *nausea*.

ABDOMEN: ileus, paralytic (abdominal pain and swelling; intractable constipation; vomiting); obstruction, intestinal.

BLADDER: retention, urinary, due to bladder atony (difficulty in passing urine).

RESPIRATION: depression, respiratory (difficulty in breathing).

CHEST: arrhythmias, cardiac (irregular heartbeat); tachycardia (fast heartbeat).

EXTREMITIES: reflexes, hyperactive (increased or excessive unconscious or jerking movements).

SLEEP: drowsiness.

FEVER: *fever*; hyperthermia (extremely high fever or body temperature); hypothermia (extremely low body temperature; weak or feeble pulse) (rebound effect?).

SKIN: **dryness**; **pruritus**, **exacerbation of** (worsening of itching); **eczema**, **exacerbation of** (worsening of eczema); **tightness of skin**; cracking of skin; *irritation*; *scaling*; *tingling*.

GENERALITIES: **burning and/or stinging at the site of application**; **edema at site of application** (swelling at site of application); **fatigue** (unusual tiredness or weakness); **paresthesias** (burning, crawling, or tingling sensation of the skin); *anticholinergic effects*; arrhythmias, cardiac (irregular heartbeat); coma (unconsciousness); hypertension (increased blood pressure); hyperthermia (extremely high fever or body temperature); reflexes, hyperactive (increased or excessive unconscious or jerking movements); hypotension (dizziness, fainting, or lightheadedness); hypothermia (extremely low body temperature; weak or feeble pulse) (rebound effect?); seizures (convulsions); tachycardia (fast heartbeat).

Doxorubicin (Systemic)

Commercial name(s): *Adriamycin PFS*; *Adriamycin RDF*; *Rubex*.

Category: Antineoplastic.

Conventional indications: Leukemia, acute lymphocytic (treatment); Leukemia, acute nonlymphocytic (treatment); Carcinoma, breast (treatment); Carcinoma, gastric (treatment); Carcinoma, lung, small cell (treatment); Carcinoma, ovarian, epithelial (treatment); Carcinoma, thyroid (treatment); Neuroblastoma (treatment); Wilms' tumor (treatment); Carcinoma, bladder (treatment); Carcinoma, bladder (prophylaxis); Leukemia, chronic lymphocytic (treatment); Carcinoma, cervical (treatment); Carcinoma, endometrial (treatment); Carcinoma, head and neck (treatment); Carcinoma, hepatocellular, primary (treatment); Carcinoma, lung, non-small cell (treatment); Carcinoma, pancreatic (treatment); Hepatoblastoma (treatment); Thymoma (treatment); Tumors, ovarian, germ cell (treatment); Tumors, trophoblastic, gestational (treatment); Carcinoma, prostatic (treatment); Lymphoma, Hodgkin's (treatment); Lymphoma, non-Hodgkin's (treatment); Ewing's sarcoma (treatment); Kaposi's sarcoma, acquired immunodeficiency syndrome (AIDS)-associated (treatment); Osteosarcoma (treatment); Sarcoma, soft tissue (treatment); Multiple myeloma (treatment); Carcinoma, adrenocortical (treatment); Carcinoid tumors (treatment); Carcinoma, esophageal (treatment); Retinoblastoma (treatment).

Primary Actions or Pathogenetic Symptoms

FACE: *flushing* (excessively rapid intravenous administration).

MOUTH: **stomatitis** (sores in mouth and on lips); *ulceration*; *infections, severe*.

THROAT: **esophagitis** (sores in mouth and on lips); *ulceration*; *infections, severe*.

STOMACH: **nausea**; **vomiting**; *ulceration, gastrointestinal* (stomach pain).

ABDOMEN: *ulceration, gastrointestinal* (stomach pain); *colitis, necrotizing* (cecal inflammation, bloody stools, severe and sometimes fatal infections) (combination regimen of doxorubicin and cytarabine).

RECTUM: *diarrhea*.

KIDNEYS: *nephropathy, uric acid* (joint pain; lower back or side pain).

URINE: **reddish-colored urine.**

CHEST: cardiotoxicity, usually in the form of congestive heart failure (shortness of breath; swelling of feet and lower legs; fast or irregular heartbeat); arrhythmias, acute, life-threatening; cardiomyopathy.

EXTREMITIES: darkening of soles, or palms (especially in children and black patients).

NAILS: darkening of nails (especially in children and black patients).

SKIN: **hair, loss of;** erythema, postirradiation, recall (darkening or redness of skin); extravasation, cellulitis, or tissue necrosis (pain at injection site); allergic reaction (skin rash or itching; fever; chills); dermatitis.

GENERALITIES: **hair, loss of; leukopenia or infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); extravasation, cellulitis, or tissue necrosis (pain at injection site); hyperuricemia (joint pain; lower back or side pain); local reaction (red streaks along injected vein); phlebosclerosis (pain at injection site); thrombocytopenia (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); anaphylaxis (wheezing); arrhythmias, acute, life-threatening; death; mucositis.

DIAGNOSTIC TESTS: **leukopenia; reddish-colored urine;** hyperuricemia; thrombocytopenia; cardiotoxicity.

Doxorubicin, Liposomal (Systemic)

Commercial name(s): *Caelyx; Doxil.*

Category: Antineoplastic.

Conventional indications: Kaposi's sarcoma (KS), acquired immunodeficiency syndrome (AIDS)-associated (treatment); Carcinoma, ovarian (treatment) [Doxorubicin HCl liposome injection]; Carcinoma, breast (treatment); Multiple myeloma, in combination with vincristine and dexamethasone.

Primary Actions or Pathogenetic Symptoms

MIND: anxiety (For treatment of refractory ovarian cancer patients); *thinking abnormal* (For treatment of refractory ovarian cancer patients).

VERTIGO: dizziness.

HEAD: **alopecia** (loss of hair); **headache** (For treatment of refractory ovarian cancer patients; less frequent for treatment of Kaposi's sarcoma patients).

EYE: conjunctivitis (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; excessive tearing) (For treatment of refractory ovarian cancer patients); neuritis, optic (blurred vision; eye pain; loss of vision) (For treatment of Kaposi's sarcoma patients).

NOSE: **disorder, mucous membrane** (changes in the lining of the mouth or nose) (For treatment of refractory ovarian cancer patients); parosmia (change in sense of smell) (For treatment of refractory ovarian cancer patients).

FACE: mucositis (sores in mouth and on lips).

MOUTH: **disorder, mucous membrane** (changes in the lining of the mouth or nose) (For treatment of refractory ovarian cancer patients); **moniliasis, oral** (creamy white, curd-like

patches in mouth or throat; pain when eating or swallowing) (For treatment of Kaposi's sarcoma patients); **stomatitis** (sores in mouth and on lips); *taste disturbance* (change in taste; bad, unusual, or unpleasant [after]taste) (For treatment of refractory ovarian cancer patients); mucositis (sores in mouth and on lips).

THROAT: moniliasis, oral (creamy white, curd-like patches in mouth or throat; pain when eating or swallowing) (For treatment of Kaposi's sarcoma patients); **pharyngitis** (sore throat) (For treatment of refractory ovarian cancer patients); *dysphagia* (difficulty swallowing).

STOMACH: anorexia (loss of appetite) (For treatment of refractory ovarian cancer patients); **nausea; vomiting.**

ABDOMEN: pain, abdominal (For treatment of refractory ovarian cancer patients)

RECTUM: diarrhea; constipation (For treatment of refractory ovarian cancer patients; less frequent for treatment of Kaposi's sarcoma patients).

GENITALIA FEMALE: leukorrhea (increased white vaginal discharge) (For treatment of refractory ovarian cancer patients).

RESPIRATION: dyspnea (troubled breathing) (For treatment of Kaposi's sarcoma patients); *pneumonia* (cough; fever; shortness of breath; troubled breathing; wheezing) (For treatment of Kaposi's sarcoma patients).

CHEST: pain, chest (For treatment of refractory ovarian cancer patients); *pneumonia* (cough; fever; shortness of breath; troubled breathing; wheezing) (For treatment of Kaposi's sarcoma patients); *tachycardia* (fast or irregular heartbeat) (For treatment of Kaposi's sarcoma patients); *cardiotoxicity* (fast or irregular heartbeat; shortness of breath; swelling of feet and lower legs); *heart failure* (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing).

BACK: pain.

EXTREMITIES: hand-foot syndrome (blistering, peeling, redness, and/or swelling of palms of hands or bottoms of feet; numbness, pain, tingling, or unusual sensations in palms of hands or bottoms of feet); *myalgia* (muscle aches) (For treatment of refractory ovarian cancer patients); *ataxia* (shakiness and unsteady walk; clumsiness, unsteadiness, trembling, or other problems with muscle control or coordination) (For treatment of refractory ovarian cancer patients); *palmar-plantar erythrodysesthesia* (ulceration, erythema, and desquamation on the hands and feet with pain and inflammation).

SLEEP: insomnia (trouble sleeping) (For treatment of refractory ovarian cancer patients).

FEVER: fever.

PERSPIRATION: sweating (For treatment of refractory ovarian cancer patients)

SKIN: alopecia (loss of hair); **dryness** (For treatment of refractory ovarian cancer patients); **rash** (For treatment of refractory ovarian cancer patients); *discoloration* (change in skin color) (For treatment of refractory ovarian cancer patients); *erythema, postirradiation, recall* (darkening or redness of skin) (For treatment of Kaposi's sarcoma patients); *pruritus* (itching skin) (For treatment of refractory ovarian cancer patients).

GENERALITIES: alopecia (loss of hair); **anemia** (unusual tiredness or weakness); **asthenia** (loss of strength and energy); **disorder, mucous membrane** (changes in the lining of the mouth or nose) (For treatment of refractory ovarian cancer patients); **infusion**

reactions (chills; facial swelling; headache; low blood pressure; shortness of breath); **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **neutropenia** (fever and sore throat); **pain** (For treatment of refractory ovarian cancer patients); **paresthesia** (tingling, burning, or prickly sensations) (For treatment of refractory ovarian cancer patients); **thrombocytopenia** (black, tarry stools; unusual bleeding or bruising ; blood in urine or stools; pinpoint red spots on skin); allergic reaction (chills; fever; skin rash or itching); edema (decreased urination; rapid weight gain; bloating or swelling of face, hands, lower legs, and/or feet) (For treatment of refractory ovarian cancer patients); infection (fever or chills ; cough or hoarseness; lower back or side pain; painful or difficult urination) (For treatment of refractory ovarian cancer patients); myalgia (muscle aches) (For treatment of refractory ovarian cancer patients); pain at injection site (For treatment of Kaposi's sarcoma patients; rare for treatment of refractory ovarian cancer patients); tachycardia (fast or irregular heartbeat) (For treatment of Kaposi's sarcoma patients); anaphylactoid reaction (cough; difficulty swallowing; hives; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; tightness in chest; wheezing) (For treatment of refractory ovarian cancer patients); ataxia (shakiness and unsteady walk; clumsiness, unsteadiness, trembling, or other problems with muscle control or coordination) (For treatment of refractory ovarian cancer patients); diabetes mellitus or hyperglycemia (blurred vision; flushed, dry skin; frequent urination; fruit-like breath odor; unusual thirst) (For treatment of Kaposi's sarcoma patients); flu-like syndrome (chills; cough; fever; general feeling of discomfort or illness; joint pain; nausea; shivering; sore throat; sweating; vomiting) (For treatment of refractory ovarian cancer patients); heart failure (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing); jaundice (yellowing of eyes and skin).

DIAGNOSTIC TESTS: **anemia; leukopenia; neutropenia; thrombocytopenia; hyperglycemia.**

Doxycycline (Mucosal-Local)

Commercial name(s): *Atridox*.

Category: Antibacterial (dental).

Conventional indications: Periodontitis (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache; stuffy head.

NOSE: congestion, nasal; drip, postnasal; infection, sinus (headache; nasal congestion).

MOUTH: discomfort, pain, or soreness, gum; erythema, soft tissue (gum redness); pain; soreness.

TEETH: sensitivity of tooth, pressure; toothache; abscess, endodontic, periapical abscess or lesion, or pulpitis (tooth or gum pain, severe or continuing); bone loss around tooth (looseness of tooth); mobility, tooth (looseness of tooth); sensitivity of tooth, thermal (sensitivity of tooth to heat or cold).

THROAT: *sore throat*.

STOMACH: *indigestion; stomachache; upset stomach*.

RECTUM: *diarrhea*.

GENITALIA FEMALE: *premenstrual tension syndrome* (abdominal bloating and/or stomach or pelvic pain).

RESPIRATION: *bronchitis* (cough; shortness of breath).

COUGH: *cough*.

CHEST: *bronchitis* (cough; shortness of breath).

EXTREMITIES: *aches, muscle*.

SLEEP: *sleeplessness*.

SKIN: *erythema, soft tissue* (gum redness); *photosensitivity* (manifested by an exaggerated sunburn reaction).

GENERALITIES: *cold-like symptoms, common; aches, muscle; blood pressure, high; infection, sinus* (headache; nasal congestion); *influenza-like symptoms; hypertension, unspecified essential; overgrowth of nonsusceptible organisms, including fungi*.

Doxycycline (Systemic)

Commercial name(s): *Doryx*.

Category: Antiacne agent; Antibiotic; Antibacterial; Antiprotozoal; Antimalarial.

Conventional indications: Acne, severe (treatment adjunct); Actinomycosis (treatment); Gonorrhea (treatment); Infections caused by clostridium species; Listeriosis (treatment); Syphilis (treatment); Vincent's infection (treatment); Yaws (treatment); Amebiasis, intestinal (treatment adjunct); Anthrax (treatment); Bartonellosis (treatment); Brucellosis (treatment); Campylobacter fetus (treatment); Chancroid (treatment); Cholera (treatment); Granuloma inguinale (treatment); Plague (treatment); Tularemia (treatment); Conjunctivitis, inclusion (treatment); Infections caused by gram-negative microorganisms (treatment); Infections caused by gram-positive microorganisms (treatment); Lymphogranuloma venereum (treatment); Malaria (prophylaxis); Nongonococcal urethritis (treatment); Psittacosis (treatment); Q fever (treatment); Rickettsial pox (treatment); Rocky Mountain spotted fever (treatment); Typhus infections (treatment); Relapsing fever (treatment); Respiratory tract infections (treatment); Trachoma (treatment); Urinary tract infections (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *fontanels, bulging* (bulging soft spot on head of an infant); *hypertension, intracranial, benign* (decrease in vision; double vision; headache; severe nausea; blurred vision; change in ability to see colors, especially blue or yellow; vomiting) (in adults).

EYE: *edema, angioneurotic* (large, hive-like swelling on eyelids).

FACE: *edema, angioneurotic* (large, hive-like swelling on face, lips).

MOUTH: *edema, angioneurotic* (large, hive-like swelling on tongue); *glossitis* (redness, swelling, or soreness of tongue).

THROAT: *dysphagia* (difficulty swallowing); *edema, angioneurotic* (large, hive-like swelling on throat); *esophagitis* (difficulty in swallowing; pain or burning in throat; chest

pain; heartburn; vomiting; sores, ulcers, or white spots on lips or tongue or inside the mouth); *ulceration, esophageal* (chest pain, discomfort, or burning; difficulty swallowing; pain with swallowing; vomiting blood).

EXTERNAL THROAT: *discoloration of thyroid glands.*

STOMACH: *anorexia* (loss of appetite; weight loss); *nausea; vomiting.*

ABDOMEN: *colitis, pseudomembranous* (abdominal or stomach cramps; pain; bloating; abdominal tenderness; diarrhea, watery and severe, which may also be bloody; fever; increased thirst; nausea or vomiting; unusual tiredness or weakness unusual weight loss); *enterocolitis* (fever; severe stomach pain; vomiting); *hepatotoxicity* (abdominal pain or tenderness; clay colored stools; dark urine; decreased appetite; fever; headache; itching; loss of appetite; nausea and vomiting; skin rash; swelling of feet or lower legs; unusual tiredness or weakness; yellow eyes or skin).

RECTUM: *diarrhea; lesions, inflammatory (with monilial overgrowth) in the anogenital region.*

GENITALIA MALE: *edema, angioneurotic* (large, hive-like swelling on sex organs); *lesions, inflammatory (with monilial overgrowth) in the anogenital region.*

GENITALIA FEMALE: *edema, angioneurotic* (large, hive-like swelling on sex organs); *lesions, inflammatory (with monilial overgrowth) in the anogenital region.*

EXTREMITIES: *edema, angioneurotic* (large, hive-like swelling on hands, legs, feet).

SKIN: *dermatitis, exfoliative* (cracks in the skin; loss of heat from the body; red, swollen skin; scaly skin); *lupus erythematosus, exacerbated* (fever; muscle pain; skin rash; sore throat); *photosensitivity* (increased sensitivity of skin to sunlight; itching; redness or other discoloration of skin; severe sunburn; skin rash); *purpura, anaphylactoid* (cough; difficulty swallowing; dizziness; fast heartbeat; hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *rashes, erythematous* (reddened skin; skin rash); *rashes, maculopapular* (rash with flat lesions or small raised lesions on the skin); *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *anaphylaxis* (cough; difficulty swallowing; dizziness; fast heartbeat; hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *anemia, hemolytic* (back, leg, or stomach pains; bleeding gums; chills; dark urine; difficulty breathing; fatigue; fever; general body; swelling; headache; loss of appetite; nausea or vomiting; nosebleeds; pale skin; sore throat; yellowing of the eyes or skin); *edema, angioneurotic* (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs); *eosinophilia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *hypersensitivity reactions* (abdominal or stomach pain; diarrhea; fever; joint or muscle pain; nausea; numbness or tingling of face, hands, or feet; redness and soreness of eyes; skin rash; shortness of breath; sores in mouth; swelling of feet or lower legs; vomiting); *lupus erythematosus, exacerbated* (fever; muscle pain; skin rash; sore throat); *neutropenia* (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *purpura, anaphylactoid*

(cough; difficulty swallowing; dizziness; fast heartbeat; hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *serum sickness* (feeling of discomfort; fever; inflammation of joints; itching; muscle aches; rash; swollen lymph glands); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: *anemia, hemolytic; eosinophilia; neutropenia; thrombocytopenia.*

Doxycycline for Dental Use (Systemic)

Commercial name(s): *Periostat.*

Category: Enzyme inhibitor, dental.

Conventional indications: Periodontitis (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MOUTH: *overgrowth, fungal* (sore mouth or tongue).

STOMACH: *dyspepsia* (heartburn); *nausea.*

RECTUM: *diarrhea; overgrowth, fungal* (itching of the rectal area).

GENITALIA MALE: *overgrowth, fungal* (itching of the genital area).

GENITALIA FEMALE: *candidiasis, vaginal, risk of; overgrowth, fungal* (itching of the genital area).

EXTREMITIES: *pain, joint.*

SKIN: *photosensitivity* (increased sensitivity of skin to sunlight).

GENERALITIES: *pain, joint; overgrowth, fungal* (itching of the rectal or genital areas; sore mouth or tongue).

Dronabinol (Systemic)

Commercial name(s): *Marinol.*

Category: Antiemetic; Appetite stimulant.

Conventional indications: Nausea and vomiting, cancer chemotherapy-induced (prophylaxis); Anorexia, AIDS-associated (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *gluttonous; euphoria* (false sense of well-being); **trouble thinking;** *amnesia* (memory loss); *anxiety; confusion; delusions; depression, mental; feelings of unreality; hallucinations* (seeing, hearing, or feeling things that are not there); *mood, changes in; nervousness; restlessness;* impairment, memory (being forgetful); lethargy (unusual drowsiness or dullness; feeling sluggish); panic reaction; speech, slurred; time perception, altered (change in how fast you think time is passing).

VERTIGO: **dizziness;** *hypotension, orthostatic* (feeling faint or lightheaded, especially when getting up from a lying or sitting position).

EYE: reddened conjunctiva (redness of eyes).

VISION: *blurred vision; changes in vision.*

FACE: *flushing of face*.

MOUTH: *dryness*; speech, slurred.

STOMACH: *appetite, increased*; **nausea**; **vomiting**.

ABDOMEN: bowel motility, reduced (constipation).

RECTUM: bowel motility, reduced (constipation).

BLADDER: retention, urinary (problems in urinating).

CHEST: *palpitations* (fast or pounding heartbeat); *tachycardia* (fast or pounding heartbeat; may be followed by normal sinus rhythm and then bradycardia).

EXTREMITIES: **ataxia** (clumsiness or unsteadiness); motor coordination, decreased.

SLEEP: **drowsiness**; *disturbances, sleep*.

GENERALITIES: *asthenia* (unusual tiredness or weakness); *hypotension, orthostatic* (feeling faint or lightheaded, especially when getting up from a lying or sitting position); *palpitations* (fast or pounding heartbeat); *tachycardia* (fast or pounding heartbeat; may be followed by normal sinus rhythm and then bradycardia); seizures; sensory awareness, heightened (change in your sense of smell, taste, sight, sound, or touch).

Secondary Actions or Rebound Effects: *abstinence syndrome* (irritability, insomnia, and restlessness); *electroencephalographic changes*; *hyperexcitation effects*; *withdrawal syndrome* (reappearance of disease symptoms).

Droperidol (Systemic)

Commercial name(s): *Inapsine*.

Category: Anesthesia, adjunct; Antiemetic; Antipsychotic.

Conventional indications: Anesthesia, general, adjunct; Anesthesia, local, adjunct; Nausea and vomiting (prophylaxis); Sedation, conscious; Psychotic disorder (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *akathisia* (restlessness); *anxiety*.

EYE: *oculogyric crisis* (fixed upward position of eyeballs).

FACE: *dystonia* (spasm of the muscles of the face).

MOUTH: *dystonia* (spasm of the muscles of the tongue).

EXTERNAL THROAT: *dystonia* (spasm of the muscles of the neck).

RESPIRATION: depression, respiratory (slowed breathing).

CHEST: *tachycardia* (rapid heart rate); *QT syndrome, prolonged* (irregular or slow heart rate; fainting; sudden death).

BACK: *dystonia* (spasm of the muscles of the back).

EXTREMITIES: *akathisia* (restlessness); *dystonia* (spasm of the muscles of the tongue, face, neck, and back).

FEVER: *hyperpyrexia* (fever).

SLEEP: **sedation, excessive** (drowsiness).

GENERALITIES: **hypotension** (lightheadedness); **sedation, excessive** (drowsiness); *tachycardia* (rapid heart rate); *hypertension* (high blood pressure); *dystonia* (spasm of the

muscles of the tongue, face, neck, and back); *QT syndrome, prolonged* (irregular or slow heart rate; fainting; sudden death).

DIAGNOSTIC TESTS: *QT syndrome, prolonged* (irregular or slow heart rate; fainting; sudden death).

Drospirenone and Estradiol (Systemic)

Commercial name(s): *Angeliq*.

Category: Estrogen-progestin; Ovarian hormone therapy agent.

Conventional indications: Menopause, vasomotor symptoms of (treatment); Vaginal atrophy (treatment); Vulvar atrophy (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *dementia* (poor insight and judgment; problems with memory or speech; trouble recognizing objects; trouble thinking and planning; trouble walking) (increased risk in postmenopausal women aged 65 to 79 years).

HEAD: **headache**; *migraine* (headache, severe and throbbing); *stroke* (confusion; difficulty in speaking; slow speech; inability to speak; inability to move arms, legs, or facial muscles; double vision; headache).

EYE: *thrombosis, retinal vascular* (changes in vision; double vision; migraine headache; blurred vision; change in vision).

VISION: *diplopia* (double vision; seeing double).

NOSE: **sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

STOMACH: **pain, abdominal** (stomach pain); nausea.

ABDOMEN: **enlarged abdomen** (swelling of abdominal or stomach area; full or bloated feeling; pressure in the stomach); **pain, abdominal** (stomach pain); *gallbladder disease* (abdominal pain; nausea and vomiting).

GENITALIA FEMALE: **hemorrhage, vaginal** (heavy nonmenstrual vaginal bleeding); *disorder, endometrial* (change in vaginal discharge; pain or feeling of pressure in pelvis; vaginal bleeding); *leukorrhea* (increased clear or white vaginal discharge); *hyperplasia or cancer, endometrial* (change in vaginal discharge; pain or feeling of pressure in pelvis; vaginal bleeding).

RESPIRATION: **infection, upper respiratory** (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *embolism, pulmonary* (anxiety; chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness).

CHEST: **pain, breast**; *cancer, breast* (clear or bloody discharge from nipple; inverted nipple; dimpling of breast skin; lump in breast or under the arm; persistent crusting or scaling of nipple; redness or swelling of breast; sore on the skin of the breast that does not heal); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting).

BACK: pain.

EXTREMITIES: pain in extremity (pain in arms or legs); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss).

GENERALITIES: flu syndrome (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **infection, upper respiratory** (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **injury, accidental; sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); *cancer, breast* (clear or bloody discharge from nipple; inverted nipple; dimpling of breast skin; lump in breast or under the arm; persistent crusting or scaling of nipple; redness or swelling of breast; sore on the skin of the breast that does not heal); *cancer, endometrial* (change in vaginal discharge; pain or feeling of pressure in pelvis; vaginal bleeding); *embolism, pulmonary* (anxiety; chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness); *hypercalcemia* (abdominal pain; confusion; constipation; depression; dry mouth; headache; incoherent speech; increased urination; loss of appetite; metallic taste; muscle weakness; nausea; thirst; unusual tiredness; vomiting; weight loss) (in patients with breast cancer and bone metastases); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); *thromboembolism, venous (VTE)* (chest pain; coughing up blood; numbness or weakness in your arm or leg, or on one side of your body; pain or redness in your lower leg (calf); sudden or severe headache; problems with vision, speech, or walking).

DIAGNOSTIC TESTS: *hypercalcemia*.

Drospirenone and Ethinyl Estradiol (Systemic)

Commercial name(s): *Yasmin*.

Category: Contraceptive, systemic.

Conventional indications: Pregnancy, prevention of.

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental, slight worsening*.

VERTIGO: *dizziness*.

HEAD: *headaches or migraines, worsening or increased frequency of; hemorrhage, cerebral* (fever; sudden loss of consciousness).

EYE: *curvature, corneal, change in; intolerance to contact lenses*.

FACE: *acne; facial hair, gain or loss of*.

STOMACH: *nausea; vomiting*.

ABDOMEN: **bloating, abdominal; cramping, abdominal;** *adenomas, benign, hepatic cell* (swelling, pain, or tenderness in upper abdominal area); *gallbladder disease; hyperplasia, hepatic focal nodular, hepatitis, or hepatocellular carcinoma* (pains in stomach, side, or abdomen, or yellow eyes or skin) (primarily in women having a predisposing or pre-existing condition, especially those who smoke tobacco).

GENITALIA FEMALE: **contraceptive** (inhibition of the ovulation); **bleeding, breakthrough** (vaginal bleeding between regular menstrual periods, which may require the use of a pad or a tampon); **erosion and secretion, cervical, change in; infertility after discontinuation; menses, scanty** (very light menstrual bleeding); **menstrual bleeding pattern, changes in the, or intermenstrual bleeding, such as amenorrhea** (complete stoppage of menstrual bleeding over several months); **spotting** (light vaginal bleeding between regular menstrual periods); *candidiasis, vaginal, or vaginitis, sporadic or recurrent* (vaginal discharge, thick, white, or curd-like, or vaginal itching or other irritation); *libido changes* (increase or decrease of interest in sexual intercourse).

CHEST: **pain, tenderness, or swelling, breast; embolism, pulmonary** (anxiety; burning pain in lower abdomen; chest pain; chills; convulsions; coughing; feeling of heat; feeling of warmth in lips and tongue; headache; nervousness; numbness of the fingertips; pain in lower back; pelvis, or stomach; ringing in the ears); *infarction, myocardial* (crushing chest pain; unexplained shortness of breath); *tumors, breast* (lumps in breast).

SKIN: **acne;** *body hair, gain or loss of; melasma* (brown, blotchy spots on exposed skin).

GENERALITIES: **jaundice, cholestatic; retention, sodium and fluid** (swelling of ankles and feet); *body hair, gain or loss of; hypertension, worsening or exacerbation; weight gain or loss;* *adenomas, benign, hepatic cell* (swelling, pain, or tenderness in upper abdominal area); *hyperplasia, hepatic focal nodular, hepatitis, or hepatocellular carcinoma* (pains in stomach, side, or abdomen, or yellow eyes or skin) (primarily in women having a predisposing or pre-existing condition, especially those who smoke tobacco); *infarction, myocardial* (crushing chest pain; unexplained shortness of breath); *thromboembolism or thrombosis* (abdominal pain, sudden, severe, or continuing; coughing up blood; headache, severe or sudden; loss of coordination, sudden; pains in chest, groin, or leg, especially calf of leg; shortness of breath, sudden, unexplained; slurring of speech, sudden; vision changes, sudden; weakness, numbness, or pain in arm or leg, unexplained) (mainly exhibited in women having predisposing or pre-existing conditions, especially for those who smoke tobacco, but the event may be idiopathic); *thrombophlebitis* (bluish color; changes in skin color; pain; tenderness; swelling of foot or leg); *tumors, breast* (lumps in breast).

Drotrecogin Alfa (Systemic)

Commercial name(s): *Xigris*.

Category: Antithrombotic.

Conventional indications: Sepsis, severe, reduction of mortality.

Primary Actions or Pathogenetic Symptoms

HEAD: *hemorrhage, intracranial*.

STOMACH: bleeding, gastrointestinal tract.

ABDOMEN: bleeding, gastrointestinal tract.

RECTUM: bleeding, gastrointestinal tract.

GENERALITIES: *bleeding*; *ecchymoses*; *death*.

Duloxetine (Systemic)

Commercial name(s): *Cymbalta*.

Category: Antidepressant; Antineuralgic.

Conventional indications: Depressive disorder, major (treatment); Pain, peripheral neuropathic, diabetic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety* (fear; nervousness).

VERTIGO: *dizziness*; *hypotension*, *orthostatic* (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position; especially at initiation of treatment); *syncope* (fainting) (especially at initiation of treatment).

HEAD: *headache*.

EYE: *edema*, *angioneurotic* (large, hive-like swelling on eyelids); *glaucoma* (blindness; blurred vision; decreased vision; eye pain; headache; nausea or vomiting; tearing).

VISION: *blurred*, *vision*.

NOSE: *nasopharyngitis* (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache).

FACE: *hot flushes* (feeling of warmth redness of the face); *edema*, *angioneurotic* (large, hive-like swelling on face, lips).

MOUTH: *dryness*; *edema*, *angioneurotic* (large, hive-like swelling on tongue).

THROAT: *nasopharyngitis* (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache); **pain**, *pharyngolaryngeal* (sore throat); *edema*, *angioneurotic* (large, hive-like swelling on throat).

EXTERNAL THROAT: *hot flushes* (feeling of warmth redness of the neck).

STOMACH: *anorexia* (loss of appetite; weight loss); **nausea**; **vomiting**; *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); *appetite decreased*.

RECTUM: **constipation** (difficulty having a bowel movement (stool)); **diarrhea**.

STOOL: *loose stools*.

BLADDER: *pollakiuria* (frequent urination).

URETHRA: *urethral resistance affected*.

GENITALIA MALE: *dysfunction*, *ejaculatory* (change or problem with discharge of semen); *dysfunction*, *erectile* (inability to have or keep an erection); *ejaculation delayed* (longer than usual time to ejaculation of semen); *libido decreased* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection); *orgasm abnormal*; *edema*, *angioneurotic* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: libido decreased (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse); orgasm abnormal; edema, angioneurotic (large, hive-like swelling on sex organs).

LARYNX AND TRACHEA: **pain, pharyngolaryngeal** (sore throat).

COUGH: **cough.**

CHEST: hot flushes (feeling of warmth redness of the upper chest).

EXTREMITIES: cramp, muscle; hot flushes (feeling of warmth redness of the arms); myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); tremor (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet); edema, angioneurotic (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs).

SLEEP: **insomnia** (sleeplessness; trouble sleeping; unable to sleep); **somnolence** (sleepiness or unusual drowsiness).

FEVER: pyrexia (fever).

PERSPIRATION: **hyperhidrosis** (excessive sweating); **increased sweating.**

SKIN: urticaria (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: **asthenia** (lack or loss of strength); **fatigue** (unusual tiredness or weakness); cramp, muscle; hot flushes (feeling of warmth redness of the face, neck, arms and occasionally, upper chest, sudden sweating); myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); tremor (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet); weight decreased; anaphylactic reaction (cough; difficulty swallowing; dizziness; fast heartbeat; hives, itching, puffiness, or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); edema, angioneurotic (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs); hepatitis (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); hyponatremia (coma; confusion; convulsions; decreased urine output; dizziness; fast or irregular heartbeat; headache; increased thirst; muscle pain or cramps; nausea or vomiting; shortness of breath; swelling of face, ankles, or hands; unusual tiredness or weakness); hypotension, orthostatic (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position; especially at initiation of treatment); jaundice (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); Stevens-Johnson syndrome (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

DIAGNOSTIC TESTS: hyponatremia.

Dutasteride (Systemic)

Commercial name(s): *Avodart.*

Category: Benign prostatic hyperplasia therapy agent.

Conventional indications: Benign prostatic hyperplasia (treatment).

Primary Actions or Pathogenetic Symptoms

FACE: *edema, localized* (swelling of face).

GENITALIA MALE: *ejaculation disorder* (decreased sexual performance or desire; abnormal ejaculation); *impotence*; *libido, decreased* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection); *ejaculate volume decreased*.

CHEST: *gynecomastia* (swelling of the breasts or breast soreness).

EXTREMITIES: *edema, localized* (swelling of fingers, feet, and/or lower legs).

SKIN: *pruritus* (itching skin); *rash*; *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *allergic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing).

Dyphylline (Systemic)

Commercial name(s): *Dilor*; *Dilor-400*; *Dylix*; *Lufyllin*; *Lufyllin-400*; *Neothylline*.

Category: Bronchodilator.

Conventional indications: Asthma (treatment), Bronchitis (treatment), Cardiac dyspnea (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness*; agitation (nervousness or restlessness); behavior, change in; confusion.

HEAD: *headache*.

STOMACH: *nausea*; *reflux*; *gastroesophageal* (heartburn; vomiting); *heartburn*; *relaxation of the gastroesophageal sphincter*; hematemesis (dark or bloody vomit); vomiting.

ABDOMEN: pain, abdominal, continuing or severe.

RECTUM: diarrhea.

BLADDER: *urination, increased*.

CHEST: *bronchodilator*; *tachycardia* (fast heartbeat); *arrhythmias, ventricular*; tachyarrhythmias (fast and irregular heartbeat).

SLEEP: *insomnia* (trouble in sleeping).

GENERALITIES: *tachycardia* (fast heartbeat); *trembling*; *arrhythmias, ventricular*; acidosis, metabolic; hyperglycemia; hypokalemia; hypotension; seizures; tachyarrhythmias (fast and irregular heartbeat).

DIAGNOSTIC TESTS: *arrhythmias, ventricular*; acidosis, metabolic; hyperglycemia; hypokalemia.

Econazole (Topical)

Commercial name(s): *Ecostatín cream; Spectazole cream.*

Category: Antifungal (topical).

Conventional indications: Candidiasis, cutaneous (treatment); Tinea corporis (treatment); Tinea cruris (treatment); Tinea pedis (treatment); Tinea versicolor (treatment); Paronychia (treatment); Tinea barbae (treatment); Tinea capitis (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: burning, itching, stinging, redness, or other signs of irritation not present before therapy; rash, pruritic (skin rash with itching).

Edetate Calcium Disodium (Systemic)

Commercial name(s): *Calcium Disodium Versenate.*

Category: Chelating agent; Diagnostic aid, lead mobilization.

Conventional indications: Toxicity, lead (treatment); Lead mobilization determination.

Primary Actions or Pathogenetic Symptoms

STOMACH: nausea; vomiting.

BLADDER: urge to urinate, frequent or sudden.

KIDNEYS: damage, renal; necrosis, tubular, renal (cloudy urine).

URINE: calcium, significant increase in urinary excretion of, from endogenous sources; hematuria, microscopic; large renal epithelial cells in urine; proteinuria.

EXTREMITIES: gout, secondary (severe pain in feet, knees, hands, elbows).

SKIN: dermatitis (cracking and dry, scaly skin, or sores in mouth and on lips) (similar to those lesions caused by vitamin B₆ deficiency).

GENERALITIES: blood pressure, low; febrile reaction, systemic (chills or sudden fever; fatigue; headache; increased thirst; loss of appetite; malaise); histamine-like reaction (sneezing; stuffy nose; watery eyes); thrombophlebitis (pain or swelling at site of injection); anemia, transient (bleeding and bruising; sore throat and fever; unusual tiredness or weakness); depression, bone marrow (bleeding and bruising; sore throat and fever; unusual tiredness or weakness); gout, secondary (severe pain in feet, knees, hands, elbows); hypercalcemia (constipation; drowsiness; dry mouth; continuing headache; loss of appetite; metallic taste).

DIAGNOSTIC TESTS: anemia, transient; depression, bone marrow; hypercalcemia; calcium, significant increase in urinary excretion of, from endogenous sources; hematuria, microscopic; large renal epithelial cells in urine; proteinuria.

Edetate Disodium (Ophthalmic)

Category: Chelating agent (ophthalmic).

Conventional indications: Calcium deposits, corneal (treatment); Calcium hydroxide burns, in eye (treatment); Zinc chloride injury, in eye (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *stinging; swelling of the eyelids; swelling of the stroma.*

Edetate Disodium (Systemic)

Commercial name(s): *Endrate.*

Category: Chelating agent.

Conventional indications: Hypercalcemia (treatment); Toxicity, digitalis glycoside (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: **hypotension, postural** (dizziness or lightheadedness).

HEAD: *headache, without other symptoms of a febrile reaction.*

FACE: *numbness and paresthesia, circumoral* (burning; crawling; itching; numbness; prickling; “pins and needles”; or tingling feelings); *sores on lips.*

MOUTH: *sores.*

STOMACH: **cramps; pain.**

ABDOMEN: **cramps, abdominal; pain, abdominal.**

RECTUM: **diarrhea.**

KIDNEYS: *nephrotoxicity* (cloudy urine; frequent or sudden urge to urinate; large or small volume of urine; painful or difficult urination); *necrosis, tubular, renal.*

URINE: *hematuria, microscopic; large renal epithelial cells in urine; proteinuria.*

EXTREMITIES: *gout, secondary* (severe pain or inflammation in feet, knees, hands, or elbows); tetany, hypocalcemic (abdominal cramps; confusion; convulsions; difficulty in breathing; irregular heartbeats; mood or mental changes; muscle cramps in hands, arms, feet, legs, or face; numbness and tingling around the mouth, fingertips, or feet; shortness of breath; tremor).

SKIN: *dermatitis, exfoliative* (skin rash or other skin and mucous membrane lesions); *cracking; dry scaly skin.*

GENERALITIES: **hypotension, postural** (dizziness or lightheadedness); **thrombophlebitis** (pain, burning, or swelling at site of injection); *anemia* (unusual tiredness or weakness); *febrile reaction* (chills or sudden fever; fatigue; headache; malaise; muscle cramps; excessive thirst; weakness); *gout, secondary* (severe pain or inflammation in feet, knees, hands, or elbows); *hypocalcemia* (convulsions; difficulty in breathing; irregular heartbeats; mood or mental changes; muscle spasms [tetany] in hands, arms, feet, legs, or face; numbness and tingling around the mouth, fingertips, or feet) (due to sudden decrease in serum calcium concentration caused by rapid intravenous infusion or high dose of edetate disodium); *hypokalemia or hypomagnesemia* (drowsiness; loss of appetite; muscle twitching or trembling; nausea or vomiting; unusual tiredness or weakness); *reticuloendothelial system damage with hemorrhagic tendencies*; tetany, hypocalcemic (abdominal cramps; confusion; convulsions; difficulty in breathing; irregular heartbeats; mood or mental changes; muscle cramps in hands, arms, feet, legs, or face; numbness and tingling around the mouth, fingertips, or feet; shortness of breath; tremor).

DIAGNOSTIC TESTS: *anemia; hypocalcemia; hypokalemia or hypomagnesemia; hematuria, microscopic; large renal epithelial cells in urine; proteinuria.*

Edrophonium (Systemic)

Commercial name(s): *Enlon; Reversol; Tensilon.*

Category: Cholinergic (cholinesterase inhibitor); Diagnostic aid (myasthenia gravis); Antidote (to nondepolarizing neuromuscular block).

Conventional indications: Myasthenia gravis (diagnosis); Neuromuscular blockade, nondepolarizing (treatment); Toxicity, curare (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *watering, increased.*

VISION: *blurred vision.*

MOUTH: *watering, increased;* secretions, salivary, increase in.

STOMACH: *cramps; nausea; pain; vomiting.*

RECTUM: *diarrhea.*

BLADDER: *urge to urinate, frequent.*

RESPIRATION: *shortness of breath; troubled breathing; wheezing.*

EXPECTORATION: *secretions, bronchial, increase in.*

CHEST: *heartbeat, slow; tightness in chest; bradycardia.*

EXTREMITIES: *cramps, muscle; twitching, muscle; weakness, muscle.*

PERSPIRATION: *sweating, increased.*

GENERALITIES: *cramps, muscle; heartbeat, slow; tiredness or weakness, unusual; twitching, muscle; weakness, muscle; bradycardia.*

Edrophonium and Atropine (Systemic)

Commercial name(s): *Enlon-Plus.*

Category: Cholinergic (cholinesterase inhibitor); Antidote (to nondepolarizing neuromuscular blockade).

Conventional indications: Neuromuscular blockade, nondepolarizing (treatment); Toxicity, curare (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: *restlessness with asthenia* (restlessness with muscle weakness); *speech disturbances* (changes in speech); delirium.

EYE: *watering, increased.*

VISION: *blurred vision.*

MOUTH: *speech disturbances* (changes in speech); *watering, increased;* dryness; secretions, salivary, increase in.

STOMACH: *cramps; nausea; pain; vomiting.*

RECTUM: *diarrhea.*

BLADDER: *urge to urinate, frequent.*

RESPIRATION: *shortness of breath; troubled breathing; wheezing.*

EXPECTORATION: *secretions, bronchial, increase in.*

CHEST: *arrhythmias* (irregular heartbeat); *mucus in the lungs, increase in; heartbeat, slow; tightness in chest; bradycardia; tachycardia.*

EXTREMITIES: *cramps, muscle; twitching, muscle; weakness, muscle.*

FEVER: *fever.*

PERSPIRATION: *sweating, increased.*

SKIN: *dryness; skin rash.*

GENERALITIES: *arrhythmias* (irregular heartbeat); *restlessness with asthenia* (restlessness with muscle weakness); *cramps, muscle; heartbeat, slow; tiredness or weakness, unusual; twitching, muscle; weakness, muscle; bradycardia; secretions, bronchial, increase in; tachycardia.*

Efalizumab (Systemic)

Commercial name(s): *Raptiva.*

Category: Antipsoriatic (systemic); Immunosuppressant.

Conventional indications: Psoriasis (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache; meningitis, aseptic* (fever; headache; nausea; stiff neck or back; vomiting).

HEARING: *loss, hearing, sensorineural.*

NOSE: *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

FACE: *acne* (blemishes on the skin; pimples).

MOUTH: *sialadenitis* (swollen salivary glands).

STOMACH: *nausea; gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); vomiting.

ABDOMEN: *gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness).

RESPIRATION: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); *pneumonitis, interstitial* (cough; difficult breathing; fever; shortness of breath).

CHEST: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); *bronchiolitis obliterans* (coughing; wheezing; or shortness of breath); *pneumonitis, interstitial* (cough; difficult breathing; fever; shortness of breath).

BACK: *osteomyelitis, vertebral* (increased bone pain in vertebrae); *pain; myelitis, transverse* (back pain; sudden and severe muscle weakness, sudden and progressing).

EXTREMITIES: **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *arthritis, septic* (muscle or joint stiffness, tightness, or rigidity); *edema, peripheral* (swelling of hands, ankles, feet, or lower legs); *arthritis, inflammatory* (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving).

CHILL: chills.

FEVER: fever.

SKIN: *acne* (blemishes on the skin; pimples); *cellulitis* (itching, pain, redness, swelling, tenderness, warmth on skin); *malignancies* (unusual lumps or skin changes).

GENERALITIES: *immunosuppression*; **flu syndrome** (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *abscess* (accumulation of pus; swollen, red, tender area of infection; fever); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *arthritis, septic* (muscle or joint stiffness, tightness, or rigidity); *asthenia* (lack or loss of strength); *hypersensitivity reaction* (difficulty in breathing or swallowing; fast heartbeat; shortness of breath; skin itching; rash or redness; swelling of face, throat, or tongue); *Legionnaire's disease*; *meningitis, aseptic* (fever; headache; nausea; stiff neck or back; vomiting); *sepsis* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *antibodies, low-titer, to efalizumab or other protein part of the efalizumab product*; *arthritis, inflammatory* (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); *hepatitis, idiopathic* (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: *thrombocytopenia*.

Secondary Actions or Rebound Effects: *psoriasis, exacerbation of pre-existing; erythrodermic psoriasis worsening events* (abnormal redness of the skin); *guttate subtype psoriasis worsening events* (small usually colored spots on skin); *pustular psoriasis worsening events* (spots on your skin resembling a blister or pimple).

Efavirenz (Systemic)

Commercial name(s): *Sustiva*.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus (HIV) (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **concentration impaired** (poor concentration); **depression**; *nervousness*; *aggressive reactions* (attack, assault, force); *agitation*; *amnesia* (loss of memory); *anxiety*; *apathy* (lack of feeling or emotion); *behavior, inappropriate*; *confusion*; *delusions*; *depersonalization* (loss of sense of reality); *euphoria* (false sense of well-being); *hallucinations* (seeing, hearing, or feeling things that are not there); *lability, emotional* (mood changes); *mania* (actions that are out of control; irritability; nervousness; talking, feeling, and acting with excitement); *neurosis*; *paranoia* (delusions of persecution, mistrust, suspiciousness, and/or combativeness); *psychosis* (severe mood or mental changes); *speech disorder*; *suicidal ideation or attempts* (thoughts of suicide or attempts at suicide).

VERTIGO: **dizziness**; *syncope* (fainting); *vertigo* (sense of constant movement of self or surroundings).

HEAD: **headache**; *alopecia* (loss of hair); *migraine headache* (headache, severe and throbbing).

VISION: *abnormal vision* (changes in vision); *diplopia* (double vision).

HEARING: *tinnitus* (ringing in the ears).

NOSE: *parosmia* (change in sense of smell).

MOUTH: *dryness*; *speech disorder*; *taste perversion* (change in sense of taste).

STOMACH: **nausea**; **vomiting**; *anorexia* (loss of appetite); *dyspepsia* (heartburn; indigestion; stomach discomfort).

ABDOMEN: *flatulence* (belching; excessive gas); *pain, abdominal*; *failure, hepatic* (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin); *folliculitis* (painful, red, hot, or irritated hair follicles); *hepatitis* (yellow eyes or skin; loss of appetite; unusual tiredness; weight loss; fever; skin rash or itching; nausea or vomiting; dark urine); *malabsorption*; *pancreatitis* (abdominal pain; fever with or without chills; swelling and/or tenderness in upper abdominal or stomach area).

RECTUM: **diarrhea**; *constipation* (difficulty having a bowel movement [stool]) (rebound effect?).

KIDNEYS: *calculus, renal* (difficult or painful urination; pain in lower back and/or side).

URINE: *hematuria* (blood in urine).

RESPIRATION: *asthma* (cough; difficulty breathing; tightness in chest; wheezing); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: *asthma* (cough; difficulty breathing; tightness in chest; wheezing); *gynecomastia* (swelling of the breasts or breast soreness in both females and males); *tachycardia or palpitations* (fast or pounding heartbeat).

EXTREMITIES: *arthralgia* (joint pain); *ataxia* (clumsiness or unsteadiness); *coordination, impaired* (difficulty with coordination); *edema, peripheral* (swelling of hands, arms, feet, or legs; rapid weight gain); *myalgia* (muscle pain); *myopathy* (muscular pain, tenderness, wasting or weakness); *neuralgia* (nerve pain); *neuropathy, peripheral* (tingling, burning, numbness, or pain in the hands, arms, feet, or legs).

NAILS: *disorders, nail* (discoloration of fingernails or toenails).

SLEEP: **insomnia** (trouble in sleeping); **somnolence** (drowsiness).

DREAMS: *abnormal dreams*.

FEVER: *fever*.

PERSPIRATION: **increased sweating**.

SKIN: **pruritus** (itching); **skin rash** (more common in children) (usually appear as mild or moderate maculopapular skin eruptions); *alopecia* (loss of hair); *dermatitis, photoallergic* (early appearance of redness or swelling of the skin; late appearance of rash with or without weeping blisters that become crusted, especially in sun-exposed areas of skin, may extend to unexposed areas); *discoloration* (change in color of treated skin); *eczema* (skin rash); *erythema multiforme* (possible prodrome of chills, fever, sore throat, muscle aches or pains, or nausea or vomiting; sores, ulcers, or white spots in mouth or on lips; skin rash or sores, hives, or itching); *exfoliation* (flaking and falling off of skin); *folliculitis* (painful, red, hot, or irritated hair follicles); *flushing*; *skin rash, severe, associated with blistering, moist desquamation, or ulceration* (blistering; open sores; ulcers); *urticaria* (hives).

GENERALITIES: **fatigue**; *cholesterol concentration, increase in total*; *hypoesthesia* (abnormally decreased sensitivity, particularly to touch); *allergic reaction* (skin rash or hives; fever; troubled breathing; tightness in chest; wheezing); *alopecia* (loss of hair); *arthralgia* (joint pain); *asthenia* (weakness); *body fat, redistribution/accumulation of* (central obesity, dorsocervical fat enlargement [buffalo hump], peripheral wasting, facial wasting, breast enlargement, and “cushingoid appearance”); *convulsions*; *edema, peripheral* (swelling of hands, arms, feet, or legs; rapid weight gain); *erythema multiforme* (possible prodrome of chills, fever, sore throat, muscle aches or pains, or nausea or vomiting; sores, ulcers, or white spots in mouth or on lips; skin rash or sores, hives, or itching); *failure, hepatic* (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin); *flushing*; *folliculitis* (painful, red, hot, or irritated hair follicles); *hypertriglyceridemia* (large amount of triglyceride in the blood); *hepatitis* (yellow eyes or skin; loss of appetite; unusual tiredness; weight loss; fever; skin rash or itching; nausea or vomiting; dark urine); *immune reconstitution syndrome*; *inflammatory response to indolent or residual opportunistic infections* (such as *Mycobacterium avium* infection, cytomegalovirus, *Pneumocystis carinii* pneumonia, or tuberculosis); *liver enzymes, elevated*; *malabsorption*; *malaise* (general feeling of discomfort); *myalgia* (muscle pain); *myopathy* (muscular pain, tenderness, wasting or weakness); *neuralgia* (nerve pain); *neuropathy, peripheral* (tingling, burning, numbness, or pain in the hands, arms, feet, or legs); *pancreatitis* (abdominal pain; fever with or without chills; swelling and/or tenderness in upper abdominal or stomach area); *paresthesia* (tingling, burning, or prickling sensations); *Stevens-Johnson syndrome*; *tachycardia or palpitations* (fast or pounding heartbeat); *thrombophlebitis* (pain, tenderness, bluish color, or swelling of leg or foot); *tremor*.

DIAGNOSTIC TESTS: *calculus, renal*; *cholesterol concentration, increase in total*; *hematuria*; *hypertriglyceridemia*; *liver enzymes, elevated*.

Eflornithine (Systemic)

Commercial name(s): *Ornidyl*.

Category: Antiprotozoal (systemic).

Conventional indications: Trypanosomiasis, African (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *alopecia* (hair loss); *headache*.

HEARING: *ototoxicity* (sensorineural hearing loss) (high-frequency hearing is lost first, followed by middle- and low-frequency hearing).

STOMACH: *nausea*; *vomiting*.

ABDOMEN: *pain*, *abdominal*.

RECTUM: *diarrhea*.

SKIN: *alopecia* (hair loss).

GENERALITIES: *anemia* (unusual tiredness or weakness); *leukopenia* (sore throat and fever); *thrombocytopenia* (unusual bleeding or bruising); *alopecia* (hair loss); *seizures*.

DIAGNOSTIC TESTS: *anemia*; *leukopenia*; *thrombocytopenia*.

Eflornithine (Topical)

Commercial name(s): *Vaniqa*.

Category: Enzyme inhibitor (topical).

Conventional indications: Reduction of facial hair.

Primary Actions or Pathogenetic Symptoms

FACE: *acne*; *cheilitis* (chapped, red, or swollen lips); *rosacea* (chronic acne); *swelling of the lips*.

SKIN: *acne*; *stinging*; *bleeding*; *burning*; *dermatitis, contact*; *erythema* (skin redness); *folliculitis* (hair bumps); *rash*; *rosacea* (chronic acne); *tingling*.

GENERALITIES: *herpes simplex*; *numbness*.

Eletriptan (Systemic)

Commercial name(s): *Relpax*.

Category: Antimigraine agent.

Conventional indications: Headache, migraine (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

FACE: *flushing* (feeling of warmth; redness of the face).

MOUTH: *dryness*.

THROAT: *dysphagia* (difficulty swallowing).

EXTERNAL THROAT: *flushing* (feeling of warmth; redness of the neck).

STOMACH: *nausea*; *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset, or pain).

ABDOMEN: *discomfort, abdominal* (stomach soreness or discomfort).

CHEST: *flushing* (feeling of warmth; redness of the upper chest); *pain, chest*; *tightness, chest*; *fibrillation, ventricular*; *infarction, myocardial*; *ischemia, myocardial, transient*; *tachycardia, ventricular*; *vasospasm, coronary artery*.

EXTREMITIES: *flushing* (feeling of warmth; redness of the arms).

SLEEP: *somnolence* (sleepiness or unusual drowsiness).

SKIN: *flushing* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest).

GENERALITIES: *asthenia* (lack or loss of strength); *flushing*; *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *infarction, myocardial; tachycardia, ventricular; vasospasm, coronary artery*.

Secondary Actions or Rebound Effects: *headache*.

Emedastine (Ophthalmic)

Commercial name(s): *Emadine*.

Category: Antihistamine (H₁-receptor), ophthalmic; Antiallergic, ophthalmic.

Conventional indications: Conjunctivitis, allergic (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache*.

EYE: *burning; dryness; hyperemia* (redness of eye); *infiltrates or staining, corneal* (blurred vision or other change in vision); *keratitis* (eye redness, irritation, or pain); *sensation, foreign body* (feeling of something in the eye); *stinging; tearing, discomfort, or other eye irritation not present before therapy or becoming worse during therapy*.

NOSE: *rhinitis* (stuffy or runny nose); *sinusitis* (headache or runny nose).

MOUTH: *taste, bad*.

DREAMS: *abnormal dreams*.

SKIN: *dermatitis* (skin rash or itching); *pruritus* (itching).

GENERALITIES: *asthenia* (weakness); *sinusitis* (headache or runny nose).

Emtricitabine (Systemic)

Commercial name(s): *Emtriva*.

Category: Antiviral (Systemic).

Conventional indications: Human immunodeficiency virus (HIV) infection (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depressive disorders*.

VERTIGO: *dizziness*.

HEAD: *headache*.

NOSE: *rhinitis* (stuffy nose; runny nose; sneezing).

FACE: *neuritis* (numbness or tingling of face).

STOMACH: *nausea; dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); *vomiting*.

ABDOMEN: *pain, abdominal; hepatomegaly with steatosis; hepatotoxicity* (which may include hepatomegaly and steatosis even in the absence of marked transaminase elevations).

RECTUM: *diarrhea*.

COUGH: *cough*.

EXTREMITIES: *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *neuritis* (numbness or tingling of hands, feet); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness).

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep).

DREAMS: *abnormal dreams*.

SKIN: *discoloration*; *rash*.

GENERALITIES: *asthenia* (lack or loss of strength); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *neuritis* (numbness or tingling of hands, feet, or face); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness); *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *acidosis, lactic* (abdominal discomfort; decreased appetite; diarrhea; fast, shallow breathing; general feeling of discomfort; muscle pain or cramping; nausea; shortness of breath; sleepiness; unusual tiredness or weakness); *body fat, accumulation of* (central obesity, dorsocervical fat enlargement (buffalo hump), peripheral wasting, facial wasting, breast enlargement, and “cushingoid appearance”); *death*.

DIAGNOSTIC TESTS: *acidosis, lactic*.

Emtricitabine and Tenofovir (Systemic)

Commercial name(s): *Truvada*.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus type 1 (HIV-1) infection (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depressive disorder* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping).

VERTIGO: *dizziness*.

HEAD: *headache*.

NOSE: *rhinitis* (stuffy nose; runny nose; sneezing).

STOMACH: *anorexia* (loss of appetite; weight loss); *nausea*; *vomiting*; *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain).

ABDOMEN: *flatulence* (passing of gas); *pain, abdominal*; *hepatomegaly with steatosis, severe*; *hepatotoxicity, including lactic acidosis* (abdominal discomfort; decreased appetite; diarrhea; fast, shallow breathing; general feeling of discomfort; muscle pain or cramping; nausea; shortness of breath; sleepiness; unusual tiredness or weakness); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: *diarrhea*.

KIDNEYS: *failure, renal, acute* (agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness); *failure or insufficiency, renal* (lower back or side pain; decreased frequency or amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure); *necrosis, tubular, acute* (bloody or cloudy urine; difficult or painful urination; sudden decrease in amount of urine); *tubulopathy, proximal* (cloudy urine; increase in amount of urine; increased thirst).

RESPIRATION: *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

COUGH: *cough increased*.

CHEST: *pain, chest; pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

BACK: *pain*.

EXTREMITIES: *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *neuritis, peripheral* (burning, crawling, itching, numbness, painful, prickling, “pins and needles”, or tingling feelings; burning of face or mouth; blindness or vision changes; clumsiness or unsteadiness; weakness in hands or feet).

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep).

DREAMS: *abnormal dreams*.

FEVER: *fever*.

PERSPIRATION: *sweating*.

SKIN: *pruritus* (itching skin); *rash, maculopapular* (rash with flat lesions or small raised lesions on the skin); *rash, pustular* (spots on your skin resembling a blister or pimple); *rash, vesiculobullous* (blisters under the skin); *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *asthenia* (lack or loss of strength); *acidosis, lactic; allergic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *body fat, accumulation of* (central obesity, dorsocervical fat enlargement (buffalo hump), peripheral wasting, facial wasting, breast enlargement, and “cushingoid appearance”); *death; Fanconi syndrome; hepatotoxicity, including lactic acidosis* (abdominal discomfort; decreased appetite; diarrhea; fast, shallow breathing; general feeling of discomfort; muscle pain or cramping; nausea; shortness of breath; sleepiness; unusual tiredness or weakness); *hypophosphatemia* (bone pain; convulsions; loss of appetite; trouble breathing; unusual tiredness or weakness); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *neuritis, peripheral* (burning, crawling, itching, numbness, painful, prickling, “pins and needles”, or tingling feelings; burning of face or mouth; blindness or vision changes; clumsiness or unsteadiness; weakness in hands or feet); *neuropathy*

(burning, tingling, numbness or pain in the hands, arms, feet, or legs; sensation of pins and needles; stabbing pain); *pain*; *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *weight loss*.

DIAGNOSTIC TESTS: *acidosis, lactic; hypophosphatemia*.

Enalapril and Felodipine (Systemic)

Commercial name(s): *Lexxel*.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness; syncope*.

HEAD: *headache*.

FACE: *angioedema* (swelling of face, lips).

MOUTH: *angioedema* (sudden trouble in swallowing or breathing; swelling of tongue); *enlargement, gingival* (gum swelling).

THROAT: *angioedema* (swelling of glottis).

ABDOMEN: *hepatotoxicity* (yellow eyes or skin); *necrosis, hepatic, fulminant*.

LARYNX AND TRACHEA: *angioedema* (swelling of larynx); *edema, laryngeal; obstruction, airway*.

RESPIRATION: *obstruction, airway*.

COUGH: *cough, dry and persistent*.

CHEST: *angina pectoris*; tachycardia (fast heartbeat).

EXTREMITIES: *angioedema* (swelling of extremities); *edema, peripheral* (swelling of ankles, feet, and lower legs).

SKIN: *flushing*.

GENERALITIES: *hypotension* (dizziness, lightheadedness, or fainting); *angioedema* (sudden trouble in swallowing or breathing; swelling of face, extremities, lips, tongue, glottis, and larynx; hoarseness); *fatigue* (unusual tiredness); *flushing*; *hyperkalemia* (confusion; irregular heartbeat; nervousness; numbness or tingling in hands, feet, or lips; shortness of breath or difficulty in breathing; weakness or heaviness of legs); *neutropenia or agranulocytosis* (chills; fever; sore throat) (occurs rarely in uncomplicated hypertension; occurs more frequently in patients with renal function impairment, especially if accompanied by a collagen-vascular disease); *thrombocytopenia* (unusual bleeding or bruising); *death; jaundice, cholestatic*; tachycardia (fast heartbeat).

DIAGNOSTIC TESTS: *hyperkalemia; neutropenia or agranulocytosis; thrombocytopenia*.

Enfuvirtide (Systemic)

Commercial name(s): *Fuzeon*.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus (HIV-1) infection (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety** (fear; nervousness); **depression** (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping).

EYE: **herpes simplex** (painful cold sores or blisters on eyes); *conjunctivitis* (redness, pain, swelling of eye, eyelid, or inner lining of eyelid burning; dry or itching eyes; discharge; excessive tearing).

NOSE: **herpes simplex** (painful cold sores or blisters on nose); **sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest; wheezing).

FACE: **herpes simplex** (painful cold sores or blisters on lips).

MOUTH: **dryness**; *taste disturbance* (change in taste; bad, unusual or unpleasant (after taste)).

STOMACH: **anorexia** (loss of appetite; weight loss); **appetite decreased**; **nausea**.

ABDOMEN: *pain, abdominal, upper*; *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: **diarrhea**; *constipation* (difficulty having a bowel movement [stool]) (rebound effect?).

KIDNEYS: *failure, renal* (lower back/side pain; decreased frequency/amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure); *glomerulonephritis*.

GENITALIA MALE: **herpes simplex** (painful cold sores or blisters on genitals).

GENITALIA FEMALE: **herpes simplex** (painful cold sores or blisters on genitals).

RESPIRATION: *distress, respiratory*; *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

COUGH: **cough**.

CHEST: *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

EXTREMITIES: **myalgia** (muscle pain); **neuropathy, peripheral** (burning, numbness, tingling, or painful sensations or weakness in arms, hands, legs, or feet; unsteadiness; awkwardness); *Guillain-Barre syndrome* (sudden numbness and weakness in the arms and legs; inability to move arms and legs); *palsy, sixth nerve*.

SLEEP: **insomnia** (sleeplessness; trouble sleeping; unable to sleep).

SKIN: **ecchymosis, injection site** (bruising; large, flat, blue or purplish patches in the skin), **erythema, injection site** (flushing; redness of skin; unusually warm skin); **nodules, injection site** (small lumps under the skin); **pruritus** (itching skin); *folliculitis* (burning, itching, and pain in hairy areas; pus at root of hair); *papilloma* (lump or growth on skin).

GENERALITIES: **asthenia** (lack or loss of strength); **cysts, injection site** (abnormal growth filled with fluid or semisolid material); **fatigue** (unusual tiredness or weakness);

herpes simplex (burning or stinging of skin; painful cold sores or blisters on lips, nose, eyes, or genitals); **induration, injection site** (hard lump); **myalgia** (muscle pain); **neuropathy, peripheral** (burning, numbness, tingling, or painful sensations or weakness in arms, hands, legs, or feet; unsteadiness; awkwardness); **pain/discomfort, injection site**; **sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest; wheezing); **weight decreased**; *infection at injection site* (itching, pain, redness, swelling, tenderness, or warmth on skin at injection site); *influenza-like illness* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains); *lymphadenopathy* (swollen, painful, or tender lymph glands in neck, armpit, or groin); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); *Guillain-Barre syndrome* (sudden numbness and weakness in the arms and legs; inability to move arms and legs); *hypersensitivity reaction* (difficulty in breathing or swallowing; fast heartbeat; shortness of breath; skin itching, rash, or redness; swelling of face, throat, or tongue; fever; nausea; vomiting; chills; rigors; hypotension and elevated serum liver transaminases); *immune complex reaction, primary*; *neutropenia* (chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual tiredness or weakness); *palsy, sixth nerve*; *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: *neutropenia; thrombocytopenia.*

Enoxaparin (Systemic)

Commercial name(s): *Lovenox; Lovenox HP.*

Category: Antithrombotic.

Conventional indications: Thromboembolism, pulmonary (prophylaxis); Thrombosis, deep venous (prophylaxis); Thrombosis, deep venous (treatment); Thrombosis, coronary arterial, acute (prophylaxis); Unstable angina and non-Q-wave myocardial infarction (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion*; coma (in rats).

NOSE: *nosebleed*.

FACE: *angioedema* (swelling of the face).

MOUTH: *angioedema* (swelling of the mouth, or tongue).

STOMACH: *nausea; vomiting; vomiting of blood or material that looks like coffee grounds*.

RECTUM: *diarrhea*.

STOOL: *black, tarry stools; bloody stools*.

URINE: *hematuria* (blood in urine; lower back pain; pain or burning while urinating).

GENITALIA MALE: *angioedema* (swelling of the genitalia).

GENITALIA FEMALE: *bleeding, menstrual, increased; angioedema* (swelling of the genitalia).

LARYNX AND TRACHEA: *angioedema* (swelling of the larynx [voice box]).

RESPIRATION: *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); *shortness of breath; pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); cyanosis (in rats); dyspnea (in rats).

COUGH: *coughing up blood.*

CHEST: *edema, lung* (chest pain; chills; cough; fever; general feeling of discomfort or illness; shortness of breath; thickening of bronchial secretions; troubled breathing); *failure, heart; fibrillation, atrial* (fast or irregular heartbeat; dizziness; fainting); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); *toxicity, cardiovascular* (chest pain; dizziness or lightheadedness when getting up from a lying or sitting position; fast or irregular heartbeat; shortness of breath; sudden fainting).

BACK: *hematoma, epidural or spinal* (back pain; bowel/bladder dysfunction; leg weakness; numbness; paralysis; paresthesias); *pain.*

EXTREMITIES: *edema, peripheral* (swelling of ankles, feet, fingers); *paralysis, long-term or permanent* (due to epidural or spinal hematoma); *paraplegia; ataxia* (in rats); motility, decreased (in rats).

FEVER: *fever.*

SKIN: *hives; skin rash.*

GENERALITIES: *hemorrhage* (bleeding gums; coughing up blood; difficulty in breathing or swallowing; dizziness; headache; increased menstrual flow or vaginal bleeding; nosebleeds; paralysis; prolonged bleeding from cuts; red or dark brown urine; red or black, tarry stools; shortness of breath); *anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); **thrombocytopenia** (black, tarry stools; bleeding gums; blood in urine or stools; moderate to severe pain or numbness in the arms, legs, hands, feet; pinpoint red spots on skin; unusual bleeding or bruising); *anemia, hypochromic* (fatigue; headache; irritability; lightheadedness); *bleeding or oozing from mucous membranes or surgical wound, persistent; bruising; ecchymosis* (large, nonelevated blue or purplish patches in the skin); *edema, central* (swelling); *hematoma* (collection of blood under the skin); *hemorrhage at injection site* (uncontrolled bleeding at site of injection); *irritation at injection site; pain at injection site; redness at injection site; failure, heart; fibrillation, atrial* (fast or irregular heartbeat; dizziness; fainting); *injury, neurologic* (due to epidural or spinal hematoma); *paralysis, long-term or permanent* (due to epidural or spinal hematoma); *paraplegia; toxicity, cardiovascular* (chest pain; dizziness or lightheadedness when getting up from a lying or sitting position; fast or irregular heartbeat; shortness of breath; sudden fainting); coma (in rats); cyanosis (in rats); death (in rats); motility, decreased (in rats).

DIAGNOSTIC TESTS: *anemia; thrombocytopenia; anemia, hypochromic; hematuria; fibrillation, atrial; hematoma, epidural or spinal.*

Secondary Actions or Rebound Effects: embolism, pulmonary (chest discomfort; convulsions; dizziness or lightheadedness when getting up from a lying or sitting position; shortness of breath or fast breathing); infarction, organ; stroke.

Entacapone (Systemic)

Commercial name(s): *Comtan*.

Category: Antidyskinetic (COMT inhibitor).

Conventional indications: Parkinsonism (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: agitation (anxiety; nervousness; restlessness; irritability; dry mouth; tremor); anxiety.

VERTIGO: dizziness; hypotension, orthostatic; syncope.

MOUTH: dryness; taste perversion (unusual or unpleasant [after] taste).

STOMACH: nausea; dyspepsia (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); gastritis (burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion); vomiting.

ABDOMEN: pain, abdominal; flatulence (passing gas); fibrosis, retroperitoneal.

RECTUM: constipation; diarrhea.

STOOL: loose stools.

URINE: discoloration, urine (to brownish orange).

RESPIRATION: dyspnea (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: effusion, pleural; fibrosis, pulmonary; infiltrates, pulmonary; thickening, pleural.

BACK: pain.

EXTREMITIES: rhabdomyolysis.

SLEEP: somnolence (sleepiness or unusual drowsiness).

FEVER: high fever.

PERSPIRATION: increased sweating.

SKIN: purpura (small, red spots on skin; bruising).

GENERALITIES: fatigue; asthenia (loss of strength or energy; muscle pain or weakness; unusual weak feeling); hypotension, orthostatic; rhabdomyolysis; rigidity, severe; inhibition of the COMT enzyme (prevention metabolism of endogenous and exogenous catechols).

DIAGNOSTIC TESTS: discoloration, urine (to brownish orange).

Secondary Actions or Rebound Effects: dyskinesia, preexisting, exacerbated; symptom complex (elevated temperature, muscular rigidity, altered consciousness, and elevated creatine kinase concentrations [CK], and resembling the neuroleptic malignant syndrome).

Entecavir (Systemic)

Commercial name(s): *Baraclude*.

Category: Antiviral (systemic).

Conventional indications: Hepatitis B virus (HBV) infection, chronic (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

STOMACH: *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); *nausea*; *vomiting*.

ABDOMEN: *hepatomegaly* (right upper abdominal pain and fullness).

RECTUM: *diarrhea*.

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep); *somnolence* (sleepiness or unusual drowsiness).

GENERALITIES: *fatigue* (unusual tiredness or weakness); *acidosis, lactic* (abdominal discomfort; decreased appetite; diarrhea; fast, shallow breathing; general feeling of discomfort; muscle pain or cramping; nausea; shortness of breath; sleepiness; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *acidosis, lactic*.

Enteral Nutrition Formulas (Systemic)

Other commonly used names: Blenderized Enteral Nutrition Formulas; Disease-specific Enteral Nutrition Formulas; Fiber-containing Enteral Nutrition Formulas; Milk-based Enteral Nutrition Formulas; Modular Enteral Nutrition Formulas; Monomeric (Elemental) Enteral Nutrition Formulas; Polymeric Enteral Nutrition Formulas.

Category: Nutritional replacement.

Conventional indications: Nutritional deficiency (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: *nausea*; *vomiting*.

RECTUM: *constipation*; *diarrhea*.

GENERALITIES: *dehydration* (decrease in urine volume; unusual tiredness or weakness); **hyperglycemia** (frequent urination or unusual thirst); **hyperkalemia** (confusion; irregular heartbeat; numbness or tingling in hands, feet, or lips; shortness of breath or difficulty breathing; unexplained nervousness; unusual tiredness or weakness; weakness or heaviness of legs); **hypokalemia** (dryness of mouth; increased thirst; irregular heartbeat; mood or mental changes; muscle cramps or pain; weak pulse); **hypophosphatemia** (convulsions; respiratory distress; unusual tiredness or weakness); *hyperphosphatemia* (muscle cramps; numbness, tingling, pain, or weakness in hands or feet; shortness of breath or troubled breathing).

DIAGNOSTIC TESTS: **hyperglycemia**; **hyperkalemia**; **hypokalemia**; **hypophosphatemia**; *hyperphosphatemia*.

Epinastine (Ophthalmic)

Commercial name(s): *Elestat*.

Category: Antihistaminic (H₁-receptor), ophthalmic; Antiallergic, ophthalmic; Mast cell stabilizer, ophthalmic.

Conventional indications: Conjunctivitis, allergic (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

EYE: burning; folliculosis (redness, itching, pain, swelling, or other irritation of the eye).

NOSE: rhinitis (stuffy nose; runny nose; sneezing); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

THROAT: pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

RESPIRATION: **infection, respiratory** (cough; fever; sneezing; sore throat).

COUGH: cough increased.

SKIN: pruritus (itching skin).

GENERALITIES: **cold-like symptoms** (runny nose; sore throat); **infection, respiratory** (cough; fever; sneezing; sore throat); hyperemia (increase in blood flow to an area of the body); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

Epinephrine (Ophthalmic)

Commercial name(s): *Epifrin; Epinal; Eppy/N; Glaucon*.

Category: Antiglaucoma agent (ophthalmic); Surgical aid, ophthalmic.

Conventional indications: Glaucoma, open-angle (treatment); Congestion, conjunctival, during surgery (treatment); Glaucoma, secondary (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: feeling faint.

HEAD: headache.

EYE: hypotension; browache; burning; irritation; redness; stinging; watering; maculopathy in aphakic eyes (blurred or decreased vision); pain or ache; deposits pigmentary, in the conjunctiva, eyelids or cornea (after prolonged use).

VISION: blurred vision or other vision change.

CHEST: heartbeat, fast, irregular, or pounding.

PERSPIRATION: increased sweating.

SKIN: palleness.

GENERALITIES: blood pressure, increased; heartbeat, fast, irregular, or pounding; trembling.

Epirubicin (Systemic)

Commercial name(s): *Ellence; Pharmorubicin PFS.*

Category: Antineoplastic adjunct.

Conventional indications: Carcinoma, breast (treatment); Carcinoma, esophageal (treatment adjunct); Carcinoma, gastric (treatment); Carcinoma, lung, non-small cell (treatment); Carcinoma, lung, small cell (treatment); Carcinoma, ovarian (treatment); Lymphomas, Hodgkin's (treatment); Lymphomas, non-Hodgkin's (treatment); Sarcoma, soft tissue (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: hair loss.

EYE: *conjunctivitis* (redness or discharge of the eye, eyelid, or lining of the eyelid).

FACE: *flushing, facial* (excessively rapid intravenous administration).

MOUTH: **mucositis (mainly oral); stomatitis** (pain or burning in mouth; bleeding, redness, or ulcers in mouth; sores in mouth and on lips).

THROAT: **mucositis (mainly oral); esophagitis** (pain or burning in throat; bleeding, redness, or ulcers in throat).

STOMACH: **nausea; vomiting; anorexia** (loss of appetite; weight loss); bleeding, gastrointestinal; gastritis.

ABDOMEN: bleeding, gastrointestinal.

RECTUM: *diarrhea*; bleeding, gastrointestinal.

KIDNEYS: *nephropathy, uric acid* (joint pain; lower back or side pain).

URINE: reddish-colored urine.

GENITALIA FEMALE: **amenorrhea** (lack of menstrual periods).

CHEST: *arrhythmias, acute, life-threatening; cardiomyopathy* (associated with persistent voltage reduction in the QRS complex, systolic interval prolongation, and reduction of ejection fraction); *congestive heart failure* (shortness of breath; swelling of abdomen, feet, and lower legs; fast or irregular heartbeat); congestive heart failure, delayed (manifested by ascites, gallop rhythm, hepatomegaly, pleural effusion, pulmonary edema, and tachycardia).

EXTREMITIES: *darkening of soles, or palms.*

NAILS: *darkening of nails.*

FEVER: hyperthermia.

SKIN: **hair loss; hot flashes; erythema, postirradiation, recall** (darkening or redness of skin at place of irradiation).

GENERALITIES: **anemia, leukopenia, neutropenia, or infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **hair loss; local reaction** (red streaks along injected vein); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *allergic reaction* (skin rash or itching; fever; chills); *anaphylaxis* (wheezing or difficulty breathing); *arrhythmias, acute, life-threatening; death; extravasation, cellulitis, or tissue necrosis* (pain at place of injection); *hyperuricemia* (joint pain; lower back or side pain); *leukemia, secondary* (bleeding; enlarged liver, lymph nodes, and spleen; infection); *myelosuppression, severe* (fever; general tiredness or weakness; infection); *phlebitis or thrombophlebitis* (pain, redness, or warmth at injection site); failure, multiple organ

(respiratory and renal) (manifested by anuria, an increase in lactate dehydrogenase, and lactic acidosis); mucositis, grade 4; hematologic abnormalities; suppression, bone marrow.

DIAGNOSTIC TESTS: **anemia; leukopenia; neutropenia; reddish-colored urine; cardiomyopathy** (associated with persistent voltage reduction in the QRS complex, systolic interval prolongation, and reduction of ejection fraction); *hyperuricemia; myelosuppression, severe; suppression, bone marrow.*

Eplerenone (Systemic)

Commercial name(s): *INSPRA; Inspira.*

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

STOMACH: *pain, abdominal* (stomach pain).

ABDOMEN: *pain, abdominal* (stomach pain); *gamma glutamyl transferase increased.*

RECTUM: *diarrhea.*

URINE: *albuminuria* (cloudy urine).

GENITALIA FEMALE: *bleeding, vaginal, abnormal.*

COUGH: *coughing.*

CHEST: *gynecomastia* (swelling of the breasts or breast soreness in both females and males); *mastodynia* (breast pain); *angina pectoris* (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting).

GENERALITIES: *hypotension; fatigue* (unusual tiredness or weakness); *hypercholesterolemia* (large amount of cholesterol in the blood); *hypertriglyceridemia* (large amount of triglyceride in the blood); *influenza-like symptoms* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); *gamma glutamyl transferase increased.*

DIAGNOSTIC TESTS: *albuminuria; hypercholesterolemia; hypertriglyceridemia; gamma glutamyl transferase increased; hyperkalemia.*

Epoetin (Systemic)

Commercial name(s): *Epogen; Eprex; Procrit.*

Category: Antianemic.

Conventional indications: Anemia associated with chronic renal failure (treatment); Anemia, severe, associated with zidovudine therapy in human immunodeficiency virus (HIV) -infected patients (treatment); Anemia associated with chemotherapy in cancer

patients (treatment); Blood transfusions, allogeneic, in anemic surgery patients, reduction of; Anemia associated with frequent blood donation (prophylaxis); Anemia associated with malignancy (treatment); Anemia associated with myelodysplastic syndromes (treatment); Anemia associated with the management of hepatitis C (treatment); Anemia, in critically ill patients (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: anxiety.

VERTIGO: dizziness.

HEAD: **headache** (may rarely indicate hypertensive encephalopathy); cerebrovascular accident (blurred vision; headache; sudden and severe inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe).

EYE: *thrombosis, retinal artery* (changes in vision; double vision; migraine headache; partial or complete loss of vision in eye).

FACE: **edema** (swelling of face).

THROAT: **pharyngitis** (sore throat).

STOMACH: **dyspepsia** (stomach discomfort, upset, or pain; heartburn; belching; acid or sour stomach); **nausea; vomiting**.

ABDOMEN: **peritonitis, in children receiving peritoneal dialysis** (abdominal pain and swelling; fever; weight loss).

RECTUM: **constipation; diarrhea**.

BLADDER: **infection, urinary tract** (blood in urine; lower back pain; pain or burning while urinating).

KIDNEYS: **infection, urinary tract** (blood in urine; lower back pain; pain or burning while urinating).

RESPIRATION: **congestion, respiratory; infection, upper respiratory tract** (cough, fever, sneezing, or sore throat); **shortness of breath**.

COUGH: **cough**.

CHEST: **congestion, respiratory; pain, chest** (fast heartbeat); **tachycardia** (fast heartbeat); embolism, pulmonary (anxiety; chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness); infarction, myocardial, non-fatal (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck, shortness of breath; nausea; sweating; vomiting).

EXTREMITIES: **edema** (swelling of fingers, ankles, feet, or lower legs); **thrombosis, deep venous** (swelling or pain in leg).

SLEEP: **insomnia** (inability to sleep).

FEVER: **fever**.

SKIN: **pain, skin; hives; skin rash**.

GENERALITIES: **asthenia** (loss of strength or energy; muscle pain or weakness); **blood pressure, increased** (blurred vision or other change in vision, grand mal seizures, headache) (may reach hypertensive levels and, rarely, lead to cerebral ischemia or to hypertensive encephalopathy); **edema** (swelling of face, fingers, ankles, feet, or lower legs; weight gain); **fatigue** (general feeling of tiredness and weakness); **infection, dialysis access, in pediatric patients with chronic renal failure** (redness or pain at the dialysis

access site; fever); **infection, upper respiratory tract** (cough, fever, sneezing, or sore throat); **influenza-like syndrome, mild** (bone or joint pain; muscle aches; chills; shivering; sweating); **paresthesia** (tingling, burning, or prickly sensation); **polycythemia** (may lead to hyperviscosity, resulting in increased peripheral vascular resistance, hypertension, and thrombotic complications, e.g., clotting of arteriovenous [AV] shunts and/or dialyzer, and, rarely, transient ischemic attacks or cerebrovascular accident or myocardial infarction); **reaction, administration site** (itching or stinging at site of injection); **tachycardia** (fast heartbeat); **thrombosis, deep venous** (swelling or pain in leg); **infarction, myocardial, non-fatal** (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck, shortness of breath; nausea; sweating; vomiting); **seizures** (convulsions); **thrombosis, vascular access** (severe headaches of sudden onset, sudden loss of coordination; pains in chest, groin, or legs, especially calves of legs; sudden onset of shortness of breath for no apparent reason; sudden onset of slurred speech; sudden vision changes); **aplasia, pure red cell** (fever and sore throat; pale skin; unusual bleeding or bruising; unusual tiredness or weakness); **immunogenicity**; **thrombophlebitis, migratory** (changes in skin color; pain, tenderness, swelling of foot or leg); **thrombosis, microvascular** (tenderness, pain, swelling, warmth, skin discoloration, and prominent superficial veins over affected area).

DIAGNOSTIC TESTS: hyperkalemia; polycythemia; aplasia, pure red cell.

Epoprostenol (Systemic)

Commercial name(s): *Flolan*.

Category: Antihypertensive (pulmonary); Vasodilator.

Conventional indications: Hypertension, pulmonary (treatment); Hypertension, pulmonary, secondary to scleroderma spectrum of disease (treatment); Hypertension, pulmonary, secondary to congenital diaphragmatic hernia (treatment); Hypertension, pulmonary, secondary to congenital heart disease (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: anxiety (with chronic administration); **nervousness** (with chronic administration); unconsciousness.

VERTIGO: dizziness (with chronic administration).

HEAD: headache (with acute dosage titration and chronic administration).

FACE: flushing (redness of face) (with acute dosage titration and chronic administration); **pain, jaw (with chewing)** (with chronic administration).

EXTERNAL THROAT: flushing of neck.

STOMACH: nausea (with acute dosage titration); **vomiting** (with acute dosage titration)

RECTUM: diarrhea (with chronic administration).

CHEST: hypotension, pulmonary; tachycardia (fast heartbeat) (with chronic administration); **dyspnea** (difficult or labored breathing).

EXTREMITIES: pain, musculoskeletal (muscle or skeletal pain) (with chronic administration).

GENERALITIES: vasodilatation, systemic and pulmonary; flushing; hypotension (dizziness, lightheadedness or fainting) (with acute dosage titration); **infection, local, at the**

catheter site (with chronic administration); **influenza-like symptoms** (chills; confusion; delirium; dizziness, lightheadedness, or fainting; fast heartbeat; fever; rapid, shallow breathing) (with chronic administration); **pain at injection site** (with chronic administration); **pain, musculoskeletal** (muscle or skeletal pain) (with chronic administration); **sepsis** (chills; confusion; delirium; dizziness, lightheadedness, or fainting; fast heartbeat; fever; rapid, shallow breathing) (with chronic administration); **tachycardia** (fast heartbeat) (with chronic administration); **thrombocytopenia** (may cause unusual bleeding such as nosebleeds or bleeding gums or bruising) (with chronic administration); *paresthesia* (altered or abnormal touch sensation or sensitivity) (with chronic administration); *asthenia* (weakness); *death* (one patient with NYHA Class III primary pulmonary hypertension); blood pressure, unrecordable.

DIAGNOSTIC TESTS: thrombocytopenia.

Secondary Actions or Rebound Effects: *fainting hypertension, pulmonary, rebound.*

Eprosartan (Systemic)

Commercial name(s): *Teveten.*

Category: Antihypertensive; Angiotensin II receptor antagonist.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *hypotension* (dizziness, light-headedness, or fainting); *syncope* (dizziness, light-headedness, or fainting).

FACE: *angioedema* (swollen lips, face).

MOUTH: *angioedema* (swollen tongue).

ABDOMEN: *pain, abdominal.*

BLADDER: *infection, urinary tract* (burning or painful urination or changes in urinary frequency).

KIDNEYS: *infection, urinary tract* (burning or painful urination or changes in urinary frequency).

RESPIRATION: *infection, upper respiratory* (cough, fever, or sore throat).

COUGH: *cough.*

EXTREMITIES: *arthralgia* (joint pain); *angioedema* (swollen limbs).

GENERALITIES: *hypotension* (dizziness, light-headedness, or fainting); *arthralgia* (joint pain); *fatigue* (unusual tiredness); *infection, upper respiratory* (cough, fever, or sore throat).

Eptifibatide (Systemic)

Commercial name(s): *Integrilin.*

Category: Platelet aggregation inhibitor.

Conventional indications: Thrombosis, acute coronary syndrome-related (prophylaxis); Thrombosis, percutaneous coronary intervention-related (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: *hemorrhage, cerebral* (confusion; headache sudden, severe; and continuing nausea and vomiting).

STOMACH: *hematemesis, spontaneous; hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

ABDOMEN: *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

RECTUM: *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

URINE: *hematuria.*

CHEST: *hemorrhage, pulmonary* (coughing up blood; shortness of breath); *revascularization, cardiac* (coronary artery bypass graft-related or femoral artery access site bleeding).

GENERALITIES: *bleeding; hypotension; anaphylaxis; bleeding events, fatal; thrombocytopenia, acute profound or regular* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: *hematuria; thrombocytopenia, acute profound or regular.*

Ergoloid Mesylates (Systemic)

Commercial name(s): *Gerimal; Hydergine; Hydergine LC.*

Category: Dementia symptoms treatment adjunct.

Conventional indications: Dementia, early (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *hypotension, orthostatic* (dizziness or lightheadedness when getting up from a lying or sitting position); dizziness; fainting.

HEAD: headache.

VISION: blurred vision.

NOSE: stuffy nose.

MOUTH: *soreness under tongue.*

STOMACH: appetite, loss of; cramps; nausea; vomiting.

CHEST: *bradycardia* (drowsiness; slow heartbeat).

SKIN: *skin rash*; flushing.

GENERALITIES: *bradycardia* (drowsiness; slow heartbeat); *hypotension, orthostatic* (dizziness or lightheadedness when getting up from a lying or sitting position); *porphyria, attacks of acute intermittent* (in susceptible patients); flushing.

Ergonovine (Systemic)

Commercial name(s): *Ergotrate; Ergotrate Maleate.*

Category: Uterine stimulant; Diagnostic aid (coronary vasospasm).

Conventional indications: Hemorrhage, postpartum (prophylaxis and treatment); Hemorrhage, postabortal (prophylaxis and treatment); Abortion, incomplete (treatment); Angina pectoris (diagnosis).

Primary Actions or Pathogenetic Symptoms

MIND: confusion; unconsciousness.

VERTIGO: *dizziness*.

HEAD: *headache, mild and transient*.

EYE: miosis (small pupils).

HEARING: *tinnitus* (ringing in the ears).

NOSE: *congestion*.

MOUTH: *taste, unpleasant*.

STOMACH: **nausea** (especially after intravenous use); **vomiting** (especially after intravenous use); *pain*; thirst, unusual.

ABDOMEN: *pain, abdominal*.

RECTUM: *diarrhea*.

GENITALIA FEMALE: **oxytocic** (uterine stimulant); **cramping, uterine**; tetany, uterine (severe cramping of the uterus).

RESPIRATION: *dyspnea* (unexplained shortness of breath); depression, respiratory (decreased breathing rate or trouble in breathing; bluish color of skin or inside of nose or mouth).

CHEST: *bradycardia* (slow heartbeat); *vasospasm, coronary* (chest pain); *arrest, cardiac; arrhythmias, ventricular, including fibrillation and tachycardia* (irregular heartbeat); *infarction, myocardial* (crushing chest pain; unexplained shortness of breath); angina (chest pain); pulse, fast, weak.

EXTREMITIES: *vasospasm, peripheral* (itching of skin; pain in arms, legs, or lower back; pale or cold hands or feet; weakness in legs); gangrene (dry, shriveled appearance of skin on hands, lower legs, or feet); hemiplegia (paralysis of one side of the body); vasoconstriction, peripheral, severe (cool, pale, or numb arms or legs; muscle pain; weak or absent arterial pulse in arms or legs; tingling, itching, and cool skin).

SLEEP: drowsiness.

PERSPIRATION: *sweating*.

SKIN: formication (false feeling of insects crawling on the skin).

GENERALITIES: *bradycardia* (slow heartbeat); *allergic reaction; arrhythmias, ventricular, including fibrillation and tachycardia; hypertension, sudden and severe* (sudden, severe headache; blurred vision; seizures); *infarction, myocardial* (crushing chest pain; unexplained shortness of breath); *shock; vasospasm, peripheral* (itching of skin; pain in arms, legs, or lower back; pale or cold hands or feet; weakness in legs); gangrene (dry, shriveled appearance of skin on hands, lower legs, or feet); hemiplegia (paralysis of one side of the body); pulse, fast, weak; seizures; tachycardia (fast heartbeat); thrombophlebitis (pain and redness in an arm or leg); vasoconstriction, peripheral, severe (cool, pale, or numb arms or legs; muscle pain; weak or absent arterial pulse in arms or legs; tingling, itching, and cool skin).

DIAGNOSTIC TESTS: *arrhythmias, ventricular, including fibrillation and tachycardia*.

Erlotinib (Systemic)

Commercial name(s): *Tarceva*.

Category: Antineoplastic.

Conventional indications: Carcinoma, lung, non-small cell (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety** (fear; nervousness); **depression** (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping).

VERTIGO: **dizziness**.

HEAD: **alopecia** (hair loss; thinning of hair); **headache**; *cerebrovascular accident* (blurred vision; headache sudden and severe; inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe).

EYE: **conjunctivitis** (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing); **keratoconjunctivitis sicca** (dryness of the eye); *keratitis* (eye redness, irritation, or pain); *ulceration, corneal* (eye irritation or redness).

MOUTH: **stomatitis** (swelling or inflammation of the mouth).

STOMACH: **anorexia** (loss of appetite; weight loss); **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); **nausea**; **vomiting**; *bleeding, gastrointestinal* (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe stomach pain; constipation).

ABDOMEN: **flatulence** (bloated full feeling; excess air or gas in stomach or intestines; passing gas); **pain, abdominal**; *bleeding, gastrointestinal* (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe stomach pain; constipation); transaminase, liver, elevated.

RECTUM: **constipation** (difficulty having a bowel movement [stool]); **diarrhea, mild to severe**; *bleeding, gastrointestinal* (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe stomach pain; constipation).

RESPIRATION: **dyspnea** (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

COUGH: **cough**.

CHEST: *infarction/ischemia, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); *lung disease, interstitial* (cough, difficult breathing, fever, shortness of breath).

EXTREMITIES: **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **neuropathy** (burning, tingling, numbness or pain in the hands, arms, feet, or legs; sensation of pins and needles; stabbing pain); **pain, bone**

SLEEP: **insomnia** (sleeplessness; trouble sleeping; unable to sleep).

CHILL: **rigors** (feeling unusually cold; shivering).

FEVER: **fever**; **pyrexia** (fever).

SKIN: **alopecia** (hair loss; thinning of hair); **dryness**; **pruritus** (itching skin); **rash, mild to severe**.

GENERALITIES: **alopecia** (hair loss; thinning of hair); **edema** (swelling); **fatigue** (unusual tiredness or weakness); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **neuropathy** (burning, tingling, numbness or pain in the hands, arms, feet, or legs; sensation of pins and needles; stabbing pain); **pain, bone; weight decreased; anemia, hemolytic, microangiopathic, with thrombocytopenia** (sudden weakness in arms or legs; sudden, severe chest pain); **infarction/ischemia, myocardial** (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); transaminase, liver, elevated.

DIAGNOSTIC TESTS: *anemia, hemolytic, microangiopathic, with thrombocytopenia*; transaminase, liver, elevated.

Ertapenem (Systemic)

Commercial name(s): *Invanz*.

Category: Antibacterial (systemic).

Conventional indications: Intra-abdominal infections, complicated (treatment) [Intravenous and intramuscular ertapenem]; Pelvic infections, acute, including postpartum endomyometritis, septic abortion, and post surgical gynecological infections (treatment) [Intravenous and intramuscular ertapenem]; Pneumonia, community-acquired (treatment) [Intravenous and intramuscular ertapenem]; Skin and skin structure infections, complicated (treatment) [Intravenous and intramuscular ertapenem]; Urinary tract infections, complicated, including pyelonephritis (treatment) [Intravenous and intramuscular ertapenem].

Primary Actions or Pathogenetic Symptoms

MIND: **mental status altered** (agitation; confusion about identity, place, and time; mental depression; drowsiness; unusual tiredness); *anxiety* (fear; nervousness); *hallucinations* (seeing, hearing, or feeling things that are not there).

VERTIGO: *dizziness*.

HEAD: **headache**.

MOUTH: *candidiasis, oral* (sore mouth or tongue; white patches in mouth and/or on tongue).

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: **nausea**; *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); *regurgitation, acid* (heartburn); *vomiting*

ABDOMEN: *colitis, pseudomembranous* (abdominal or stomach cramps; pain; bloating; abdominal tenderness; diarrhea, watery and severe, which may also be bloody; fever; increased thirst; nausea or vomiting; unusual tiredness or weakness; unusual weight loss).

RECTUM: **diarrhea** (loose or frequent bowel movements); *constipation* (difficulty having a bowel movement [stool]) (rebound effect?).

GENITALIA FEMALE: vaginitis (itching of the vagina or genital area; pain during sexual intercourse; thick, white vaginal discharge with no odor or with a mild odor).

RESPIRATION: dyspnea or respiratory distress (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

COUGH: cough.

CHEST: pain, chest; tachycardia (fast, pounding, or irregular heartbeat or pulse).

EXTREMITIES: pain, leg.

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep).

FEVER: fever.

SKIN: erythema (flushing; redness of skin; unusually warm skin); pruritus (itching skin); rash.

GENERALITIES: infused vein complication (bleeding; blistering; burning; coldness; discoloration of skin; feeling of pressure; hives; infection; inflammation; itching; lumps; numbness; pain; rash; redness; scarring; soreness; stinging; swelling; tenderness; tingling; ulceration; warmth); asthenia or fatigue (lack or loss of strength; unusual tiredness or weakness); edema (swelling); hypertension (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); hypotension (blurred vision; confusion; dizziness; faintness or lightheadedness when getting up from a lying or sitting position; sudden sweating; unusual tiredness or weakness); phlebitis or thrombophlebitis (bluish color changes in skin color; pain, tenderness, swelling of foot or leg); tachycardia (fast, pounding, or irregular heartbeat or pulse); allergic reaction (fainting or loss of consciousness; fast or irregular breathing; swelling of eyes or eyelids; trouble in breathing; tightness in chest; wheezing; skin rash; itching); anaphylaxis including anaphylactoid reactions (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); seizures (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control).

Erythromycin (Ophthalmic)

Commercial name(s): *Ilotycin*.

Category: Antibacterial (ophthalmic).

Conventional indications: Conjunctivitis, neonatal (prophylaxis); Ocular infections (treatment); Ophthalmia neonatorum (prophylaxis); Blepharitis, bacterial (treatment); Blepharoconjunctivitis (treatment); Chlamydial infections (treatment); Conjunctivitis, bacterial (treatment); Keratitis, bacterial (treatment); Keratoconjunctivitis, bacterial (treatment); Meibomianitis (treatment); Trachoma (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *irritation not present before therapy*.

Erythromycin (Topical)

Commercial name(s): *A/T/S; Akne-Mycin; ETS; Emgel; Ery-Sol; EryDerm; Erycette; Erygel; Erymax; Erythra-Derm; Sans-Acne; Staticin; T-Stat; Theramycin Z.*

Category: Antiacne agent (topical) [Erythromycin Ointment; Erythromycin Pledgets; Erythromycin Topical Gel; Erythromycin Topical Solution]; Antibacterial (topical) [Erythromycin Ointment].

Conventional indications: Acne vulgaris (treatment); Skin infections, bacterial, minor (prophylaxis); Skin infections, bacterial, minor (treatment) [Erythromycin ointment].

Primary Actions or Pathogenetic Symptoms

SKIN: **burning feeling** [pledgets, topical gel, and topical solution]; **dry or scaly skin** [pledgets, topical gel, and topical solution]; **irritation** [pledgets, topical gel, and topical solution]; **itching** [pledgets, topical gel, and topical solution]; **stinging** [pledgets, topical gel, and topical solution]; peeling [ointment, pledgets, topical gel, and topical solution]; redness [ointment, pledgets, topical gel, and topical solution].

Erythromycin and Benzoyl Peroxide (Topical)

Commercial name(s): *Benzamycin.*

Category: Antiacne agent (topical).

Conventional indications: Acne vulgaris (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: dermatitis, contact, allergic (burning, blistering, crusting, itching, severe redness, or swelling of the skin); dryness; feeling of warmth; irritation, painful; peeling; rash; redness; stinging, mild; burning; itching; scaling; swelling of the skin.

Erythromycin and Sulfisoxazole (Systemic)

Commercial name(s): *Eryzole; Pediazole.*

Category: Antibacterial (systemic).

Conventional indications: Otitis media, acute (treatment); Sinusitis (treatment).

Primary Actions or Pathogenetic Symptoms

Erythromycin - See Erythromycins (Systemic).

Sulfisoxazole - See Sulfonamides (Systemic).

Erythromycins (Systemic)

Commercial name(s): *Apo-Erythro; Apo-Erythro E-C; Apo-Erythro-ES; Apo-Erythro-S; E-Base; E-Mycin; E.E.S.; ERYC; ERYC-250; ERYC-333; Ery-Tab; EryPed; Erybid; Erythro; Erythrocin; Erythrocot; Erythromid; Ilosone; Ilotycin; My-E; Novo-Rythro; Novo-rythro; Novo-rythro Encap; PCE; Wintrocin.*

Category: Antibacterial (systemic) [Erythromycin Base; Erythromycin Estolate; Erythromycin Ethylsuccinate; Erythromycin Gluceptate; Erythromycin Lactobionate; Erythromycin Stearate]; Antiacne agent [Erythromycin Base; Erythromycin Estolate; Erythromycin Ethylsuccinate; Erythromycin Stearate]; Bowel preparation (preoperative) adjunct [Erythromycin Base].

Conventional indications: Bowel preparation, preoperative [Enteric-coated erythromycin base]; Bronchitis, bacterial exacerbations (treatment); Otitis media, acute (treatment); Sinusitis (treatment); Chlamydial infections, endocervical and urethral (treatment); Conjunctivitis, chlamydial (treatment); Pneumonia, chlamydial (treatment); Diphtheria (prophylaxis and treatment); Endocarditis, bacterial (prophylaxis); Erythrasma (treatment); Gonorrhea, endocervical (treatment); Gonorrhea, urethral (treatment); Legionnaires' disease (treatment); Listeriosis (treatment); Pertussis (treatment); Pharyngitis, streptococcal (treatment); Pneumonia, mycoplasmal (treatment); Pneumonia, pneumococcal (treatment); Rheumatic fever (prophylaxis); Skin and soft tissue infections (treatment); Syphilis (treatment); Urethritis, nongonococcal (treatment); Acne vulgaris (treatment) [Oral erythromycins]; Actinomycosis (treatment); Anthrax (treatment); Chancroid (treatment); Lymphogranuloma venereum (treatment); Relapsing fever (treatment); Enteritis, *Campylobacter* (treatment); Gastroparesis (treatment); Lyme disease (treatment).

Primary Actions or Pathogenetic Symptoms

HEARING: *deafness; hearing, loss of, usually reversible* [Parenteral Erythromycins].

MOUTH: *candidiasis, oral* (sore mouth or tongue; white patches in mouth and/or on tongue).

STOMACH: *cramping; discomfort.*

ABDOMEN: *cramping, abdominal; discomfort, abdominal; hepatotoxicity* (fever; nausea; skin rash; stomach pain, severe; unusual tiredness or weakness; yellow eyes or skin; vomiting); *cholestasis; pancreatitis* (severe abdominal pain, nausea, and vomiting) [Parenteral Erythromycins].

GENITALIA FEMALE: *candidiasis, vaginal* (vaginal itching and discharge).

CHEST: *torsades de pointes* (irregular or slow heart rate; recurrent fainting; sudden death) [Parenteral Erythromycins].

SKIN: *hypersensitivity* (skin rash, redness, or itching).

GENERALITIES: *inflammation or phlebitis at the injection site* [Parenteral Erythromycins]; *jaundice.*

DIAGNOSTIC TESTS: *QT prolongation* [Parenteral Erythromycins]; *torsades de pointes* [Parenteral Erythromycins].

Escitalopram (Systemic)

Commercial name(s): *Lexapro.*

Category: Antidepressant; Antianxiety agent.

Conventional indications: Depressive disorder, major (treatment); Generalized Anxiety Disorder (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

NOSE: *rhinitis* (stuffy nose; runny nose; sneezing); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

MOUTH: *dryness.*

STOMACH: *indigestion* (gas in stomach; heartburn; nausea; stomach pain); *nausea; appetite, decreased.*

ABDOMEN: *pain, abdominal.*

RECTUM: *constipation; diarrhea.*

GENITALIA MALE: *ejaculation, abnormal* (ejaculation delay); *impotence; libido, decreased* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection); *anorgasmia* (not able to have an orgasm).

GENITALIA FEMALE: *anorgasmia* (not able to have an orgasm).

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep); *somnolence* (sleepiness or unusual drowsiness).

PERSPIRATION: *sweating, increased.*

GENERALITIES: *fatigue* (unusual tiredness or weakness); *influenza like symptoms* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *hyponatremia or syndrome of inappropriate antidiuretic hormone secretion* (coma; confusion; convulsions; decreased urine output; dizziness; fast or irregular heartbeat; headache; increased thirst; muscle pain or cramps; nausea or vomiting; shortness of breath; swelling of face, ankles, or hands; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *hyponatremia or syndrome of inappropriate antidiuretic hormone secretion.*

Esmolol (Systemic)

Commercial name(s): *Brevibloc.*

Category: Antiadrenergic; Antiarrhythmic.

Conventional indications: Arrhythmias, cardiac (treatment); Tachycardia, intraoperative and postoperative (treatment); Hypertension, intraoperative and postoperative (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; confusion; nervousness; depression, mental.*

VERTIGO: *fainting; dizziness, severe.*

HEAD: *headache.*

STOMACH: *nausea; vomiting.*

RESPIRATION: *breathing difficulty; wheezing.*

CHEST: *bradycardia* (especially less than 50 beats per minute); *pain, chest*.

EXTREMITIES: *circulation, peripheral, reduced* (cold hands and feet); bluish-colored palms of hands.

NAILS: bluish-colored fingernails.

SLEEP: *drowsiness*.

FEVER: *fever*.

SKIN: *flushing; pale skin*.

GENERALITIES: **hypotension** (dizziness; sweating); *circulation, peripheral, reduced* (cold hands and feet); *flushing; redness or swelling at place of injection; tiredness; bradycardia* (especially less than 50 beats per minute); seizures.

Esomeprazole (Systemic)

Commercial name(s): *Axagon; Esopral; Lucen; Nexiam; Nexium; Nexium IV*.

Category: Gastric acid pump inhibitor; Antiulcer agent.

Conventional indications: Gastroesophageal reflux disease [GERD] (prophylaxis and treatment); Ulcer, duodenal, *Helicobacter pylori*-associated (treatment adjunct); Ulcer, gastric, nonsteroidal anti-inflammatory drug-induced (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: confusion (mood or mental changes).

VERTIGO: *dizziness*.

HEAD: *headache*.

VISION: blurred vision.

NOSE: *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

MOUTH: *dryness*.

STOMACH: *reduction of gastric acid* (hypochloremic alkalosis); **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); *nausea; gastritis, atrophic* (in the gastric corpus biopsies of patients treated long-term with Omeprazole, of which Esomeprazole is an enantiomer).

ABDOMEN: *flatulence* (gas); *pain, abdominal; pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: *constipation; diarrhea*.

RESPIRATION: *infection, respiratory* (cough; fever; sneezing; sore throat).

CHEST: tachycardia (fast, pounding, or irregular heartbeat or pulse).

SLEEP: drowsiness (sleepiness).

PERSPIRATION: diaphoresis (increased sweating).

SKIN: *pruritus; erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *necrosis, epidermal, toxic* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle

pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); flushing (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest).

GENERALITIES: application site reaction (burning, itching, redness, skin rash, swelling, or soreness at site) [esomeprazole for injection]; infection, respiratory (cough; fever; sneezing; sore throat); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); anaphylactic reaction (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); erythema multiforme (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); pancreatitis (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); Stevens-Johnson syndrome (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); tachycardia (fast, pounding, or irregular heartbeat or pulse).

Estramustine (Systemic)

Commercial name(s): *Emcyt*.

Category: Antineoplastic.

Conventional indications: Carcinoma, prostatic (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: nausea; vomiting.

RECTUM: diarrhea.

GENITALIA MALE: interest in sex decreased.

GENITALIA FEMALE: interest in sex decreased.

CHEST: enlargement, breast; tenderness, breast.

SLEEP: trouble in sleeping.

GENERALITIES: **retention, sodium and fluid** (swelling of feet or lower legs); *allergic reaction* (skin rash or fever); *anemia* (unusual tiredness or weakness); *leukopenia* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *thrombosis* (severe or sudden headaches; sudden loss of coordination; pains in chest, groin, or leg, especially calf of leg; sudden and unexplained shortness of breath; sudden slurred speech; sudden vision changes; weakness or numbness in arm or leg).

DIAGNOSTIC TESTS: *anemia; leukopenia; thrombocytopenia*.

Estrogens (Systemic)

Commercial name(s): *Alora; C.E.S.; Climara; Clinagen LA 40; Congest; Delestrogen; Depo-Estradiol; Depogen; Estinyl; Estrace; Estraderm; Estradot; Estragyn 5; Estragyn LA 5; Estrasorb; Estro-A; Estro-LA; Kestrone-5; Menaval-20; Menest; Neo-Estrone; Ogen; Ogen .625; Ogen 1.25; Ogen 2.5; Ortho-Est .625; Ortho-Est 1.25; Premarin; Premarin Intravenous; Valergen-20; Valergen-40; Vivelle; Vivelle-Dot.*

Category: Estrogen (systemic) [Conjugated Estrogens; Diethylstilbestrol ; Esterified Estrogens; Estradiol; Estrone; Estropipate; Ethinyl Estradiol]; Antineoplastic [Conjugated Estrogens Tablets; Diethylstilbestrol; Esterified Estrogens; Estradiol; Estradiol Valerate; Estrone; Ethinyl Estradiol]; Osteoporosis prophylactic [Conjugated Estrogens Tablets; Esterified Estrogens; Estradiol Tablets; Estradiol Transdermal System; Estropipate]; Ovarian hormone therapy agent [Conjugated Estrogens Tablets; Esterified Estrogens; Estradiol Tablets; Estradiol Transdermal System; Estropipate].

Conventional indications: Bleeding, uterine, hormonal imbalance-induced (treatment) [Conjugated estrogens for injection and estrone]; Carcinoma, breast (treatment) [Conjugated estrogens tablets, esterified estrogens, estradiol tablets, and ethinyl estradiol]; Carcinoma, prostatic (treatment) [Conjugated estrogens tablets, diethylstilbestrol, esterified estrogens, estradiol tablets, estradiol valerate, estrone, and ethinyl estradiol]; Estrogen deficiency, due to ovariectomy (treatment); Hypogonadism, female (treatment), or Ovarian failure, primary (treatment) [Conjugated estrogens tablets, esterified estrogens, estradiol tablets, matrix- or reservoir-type estradiol transdermal system, estrone, estropipate, and ethinyl estradiol]; Menopause, vasomotor symptoms of (treatment), Vaginitis, atrophic (treatment) or Vulvar atrophy (treatment) [Conjugated estrogens tablets, esterified estrogens, estradiol tablets, matrix- or reservoir-type estradiol transdermal system, estradiol valerate, estrone, and estropipate]; Osteoporosis, postmenopausal (prophylaxis) [Conjugated estrogens tablets, esterified estrogens, estradiol tablets, matrix- or reservoir-type estradiol transdermal system, and estropipate]; Osteoporosis, premenopausal, estrogen deficiency-induced (prophylaxis) [Conjugated estrogens tablets, esterified estrogens, estradiol tablets, matrix- or reservoir-type estradiol transdermal systems, and estropipate]; Turner's syndrome (treatment) [Ethinyl estradiol].

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety** (fear; nervousness); **depression** (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); emotional disturbance (mood or mental changes); *dementia* (poor insight and judgment; problems with memory or speech; trouble recognizing objects; trouble thinking and planning; trouble walking); *irritability; nervousness*.

VERTIGO: **dizziness, mild.**

HEAD: **headache; migraine headaches** (headache, severe and throbbing); *embolic cerebrovascular events* (in women receiving postmenopausal estrogens); *hair, scalp, loss of; stroke* (confusion; difficulty in speaking; slow speech; inability to speak; inability to move arms, legs, or facial muscles; double vision; headache).

EYE: infection, herpes simplex (painful cold sores or blisters on eyes); intolerance to contact lenses; *curvature, corneal, steepening of* (vision changes); *neuritis, optic*

(blindness; blue-yellow color blindness; blurred vision; decreased vision; eye pain); *thrombosis, retinal* (changes in vision; double vision; migraine headache; partial or complete loss of vision in eye).

VISION: *disturbances, visual* (any change in vision).

NOSE: **congestion, sinus** (stuffy nose; headache); **nasopharyngitis** (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache); **rhinitis** (stuffy nose; runny nose; sneezing); **sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *congestion, nasal* (stuffy nose); *infection, herpes simplex* (painful cold sores or blisters on nose).

FACE: *acne* (blemishes on the skin; pimples); *hirsutism* (increased hair growth, especially on the face); *infection, herpes simplex* (painful cold sores or blisters on lips); *neuritis* (numbness or tingling of face); *chorea* (twitching, uncontrolled movements of lips, face).

MOUTH: *chorea* (twitching, uncontrolled movements of tongue).

TEETH: *abscess, tooth* (tooth or gum pain).

THROAT: **nasopharyngitis** (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache); **pharyngitis** (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

EXTERNAL THROAT: **pain, neck.**

STOMACH: **anorexia** (loss of appetite); **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); **nausea**; *gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *vomiting* (primarily of central origin; usually with high doses); *appetite, changes in.*

ABDOMEN: **bloating; cramping, abdominal; flatulence** (bloated full feeling; excess air or gas in stomach or intestines; passing gas); **pain, abdominal**; *gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *obstruction, gallbladder; hemangioma, hepatic, enlargement of* (full feeling in upper abdomen; nausea; pain in upper abdomen); *liver function, impaired, asymptomatic.*

RECTUM: **constipation** (difficulty having a bowel movement (stool)); *diarrhea, mild.*

BLADDER: **infection, urinary tract** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *dysuria* (difficult or painful urination; burning while urinating); *infection, bladder* (blood in urine; burning with urination; fever; lower abdominal pain or pressure; painful, difficult, or frequent urination); *cystitis* (bloody or cloudy urine difficult; burning or painful urination; frequent urge to urinate).

KIDNEYS: **infection, urinary tract** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

GENITALIA MALE: *infection, herpes simplex* (painful cold sores or blisters on genitals); *libido decrease* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection).

GENITALIA FEMALE: **bleeding, withdrawal** (in patients placed on cyclic estrogen therapy with a progestin who have not undergone hysterectomy); **dysmenorrhea** (pain; cramps; heavy bleeding); **leukorrhea** (increased clear or white vaginal discharge); **vaginitis** (itching of the vagina or genital area; pain during sexual intercourse; thick, white

vaginal discharge with no odor or with a mild odor); **vaginitis, fungal** (change in the color, amount, or odor of vaginal discharge); amenorrhea (stopping of menstrual bleeding); bleeding, breakthrough (heavier vaginal bleeding between regular menses); discharge, vaginal (white or brownish vaginal discharge); dyspareunia (painful sexual intercourse); hemorrhage, vaginal (heavy nonmenstrual vaginal bleeding); infection, candidal (itching of the vagina or outside genitals; pain during sexual intercourse; thick, white curd-like vaginal discharge without odor or with mild odor); infection, herpes simplex (painful cold sores or blisters on genitals); libido increase (increased in sexual ability, desire, drive, or performance; increased interest in sexual intercourse); menorrhagia (prolonged or heavier menses); spotting (lighter vaginal bleeding between regular menses); atrophy, endometrial [continuous estrogen-progestin therapy]; cancer, endometrial (change in vaginal discharge; pain or feeling of pressure in pelvis; vaginal bleeding); cancer, ovarian (acid or sour stomach; belching; backache; full or bloated feeling or pressure in the stomach; heartburn; indigestion; loss of appetite; stomach discomfort, upset or pain; swelling of abdominal or stomach area); ectropion, cervical, change in (abnormal turning out of cervix); hyperplasia, endometrial (change in vaginal discharge; pain or feeling of pressure in pelvis; vaginal bleeding); leiomyomata, uterine, increase in size (abdominal bloating; stomach pain; pelvic pain); secretion, cervical, change in (change in amount of vaginal discharge; bloody vaginal discharge).

RESPIRATION: bronchitis (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); **infection, upper respiratory tract [URTI]** (chest pain; chills; cough; ear congestion or pain; fever; head congestion; hoarseness or other voice changes; nasal congestion; runny nose); asthma, exacerbation of (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing).

COUGH: cough, increased.

CHEST: bronchitis (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); **enlargement of breasts** (in females); **gynecomastia** (increased breast size) (in males treated for prostatic cancer); **pain or tenderness, breast** (in females as well as in males treated for prostatic cancer); infection, pleural (chest pain; cough; fever or chills; shortness of breath; troubled breathing); pain, chest; tumors, breast (breast lumps; discharge from breast); asthma, exacerbation of (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); cancer, breast (clear or bloody discharge from nipple; inverted nipple; dimpling of breast skin; lump in breast or under the arm; persistent crusting or scaling of nipple; redness or swelling of breast; sore on the skin of the breast that does not heal); embolism, pulmonary (anxiety; chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness); fibrocystic breast changes (lumps in breasts; painful or tender cysts in the breasts); galactorrhea (unexpected or excess milk flow from breasts); infarction, myocardial (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); palpitations (irregular heartbeat); thrombosis, coronary (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting).

BACK: pain.

EXTREMITIES: edema, peripheral (swelling of feet and lower legs; rapid weight gain); cramps, muscle; osteoarthritis (pain, swelling, or redness in joints; muscle pain or stiffness;

difficulty in moving); spasms, muscle; neuritis (numbness or tingling of hands, feet); chorea (twitching, uncontrolled movements of arms, or legs); cramps, leg; varicose veins, exacerbation of (dull ache or feeling of pressure or heaviness in legs; itching skin near damaged veins; swollen feet and ankles).

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep).

SKIN: irritation [transdermal system]; **pruritus** (itching skin); **rash; redness** [transdermal system]; acne (blemishes on the skin; pimples); hirsutism (increased hair growth, especially on the face); chloasma (patchy brown or dark brown discoloration of skin); eruption, hemorrhagic (pinpoint red or purple spots on skin); erythema multiforme (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red, irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); erythema nodosum (fever; pain in ankles or knees; painful, red lumps under the skin, mostly on the legs); melasma (patchy brown or dark brown discoloration of skin).

GENERALITIES: asthenia (lack or loss of strength); **cyst** (abnormal growth filled with fluid or semisolid material); **edema, peripheral** (swelling of feet and lower legs; rapid weight gain); **flu syndrome** (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **fluid retention or edema** (decrease in amount of urine; noisy, rattling breathing; shortness of breath; swelling of fingers, hands, feet, or lower legs; troubled breathing at rest; weight gain); **hypersensitivity reactions** (fast heartbeat; fever; hives; itching; irritation; hoarseness; joint pain; stiffness or swelling; rash; redness of skin; shortness of breath; swelling of eyelids, face, lips, hands, or feet; tightness in chest; troubled breathing or swallowing; wheezing); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **infection, fungal** (coating or white patches on tongue; itching of the rectal or genital areas; sore mouth or tongue); **infection, upper respiratory tract [URTI]** (chest pain; chills; cough; ear congestion or pain; fever; head congestion; hoarseness or other voice changes; nasal congestion; runny nose); **injury, accidental; pain; sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); **weight, increased; cramps, muscle; fatigue** (unusual tiredness or weakness); hepatitis; hirsutism (increased hair growth, especially on the face); hypertension (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); hypoesthesia (burning, crawling, itching, numbness, prickling, “pins and needles” , or tingling feelings); infection, herpes simplex (burning or stinging of skin; painful cold sores or blisters on lips, nose, eyes, or genitals); osteoarthritis (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); pancreatitis (pains in stomach, side, or abdomen; yellow eyes or skin); spasms, muscle; thromboembolism or thrombus formation (severe or sudden headache; sudden loss of coordination; pains in chest, groin, or leg, especially calf; sudden and unexplained shortness of breath; sudden slurred speech ; sudden vision changes; weakness or numbness in arm or leg) [for treatment of male breast cancer or prostatic cancer only]; tumors, breast (breast lumps; discharge from breast); cancer, breast (clear or bloody discharge from nipple; inverted nipple; dimpling of breast skin; lump in breast or under the arm; persistent

crusting or scaling of nipple; redness or swelling of breast; sore on the skin of the breast that does not heal); *cancer, endometrial* (change in vaginal discharge; pain or feeling of pressure in pelvis; vaginal bleeding); *chorea* (twitching, uncontrolled movements of tongue, lips, face, arms, or legs); *epilepsy, exacerbation of* (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red, irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *hypercalcemia* (abdominal pain; confusion; constipation; depression; dry mouth; headache; incoherent speech; increased urination; loss of appetite; metallic taste; muscle weakness; nausea; thirst; unusual tiredness; vomiting; weight loss) (in patients with breast cancer and bone metastases); *hypocalcemia* (abdominal cramps; confusion; convulsions; difficulty in breathing; irregular heartbeats; mood or mental changes; muscle cramps in hands, arms, feet, legs, or face; numbness and tingling around the mouth, fingertips, or feet; shortness of breath; tremor); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); *jaundice, cholestatic* (abdominal or stomach pain; chills; clay-colored stools; dark urine; diarrhea; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *lupus erythematosus, exacerbation of* (fever; muscle pain; skin rash; sore throat); *neuritis* (numbness or tingling of hands, feet, or face); *palpitations* (irregular heartbeat); *porphyria, aggravation of* (darkening of urine; dark urine; fluid-filled skin blisters; itching of the skin; light-colored stools; sensitivity to the sun; skin thinness; yellow eyes or skin); *retention, sodium* (decrease in amount of urine; noisy, rattling breathing; shortness of breath; swelling of fingers, hands, feet, or lower legs; troubled breathing at rest; weight gain); *sugar levels, blood, increased or glucose tolerance, reduced* (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); *thromboembolic disorders* (severe headaches of sudden onset; sudden loss of coordination; pains in chest, groin, or legs, especially calves of legs; sudden onset of shortness of breath for no apparent reason; sudden onset of slurred speech; sudden vision changes); *thrombophlebitis* (changes in skin color; pain; tenderness; swelling of foot or leg); *thrombosis, venous, deep or superficial* (tenderness, pain, swelling; warmth; skin discoloration; prominent superficial veins over affected area); *triglycerides, increased* (large amount of triglyceride in the blood); *varicose veins, exacerbation of* (dull ache or feeling of pressure or heaviness in legs; itching skin near damaged veins; swollen feet and ankles); *weight decrease*

DIAGNOSTIC TESTS: *hypercalcemia; hypocalcemia; sugar levels, blood, increased or glucose tolerance, reduced; triglycerides, increased.*

Secondary Actions or Rebound Effects: **hot flushes** (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest; sudden sweating).

Estrogens (Vaginal)

Commercial name(s): *Estrace; Estring; Oestrilin; Premarin.*

Category: Urogenital symptoms suppressant.

Conventional indications: Urethritis, atrophic, postmenopausal (treatment) [Estradiol vaginal insert]; Vaginitis, atrophic (treatment) [Conjugated estrogens, dienestrol, estradiol vaginal cream, estradiol vaginal insert, and estropipate]; Vulvar atrophy [Conjugated estrogens, dienestrol, estradiol vaginal cream, estradiol vaginal insert, estrone, and estropipate].

Primary Actions or Pathogenetic Symptoms

HEAD: *headache; stroke, increased risk of.*

STOMACH: *nausea.*

ABDOMEN: *pain, abdominal.*

GENITALIA FEMALE: *candidiasis, vulvovaginal* (itching of the vagina or genitals; thick, white vaginal discharge without odor or with a mild odor) (estrogens usually prevent); *leukorrhea* (clear vaginal discharge); *vulvovaginitis* (itching, stinging, or redness of the genital area) (estrogens usually prevent); *bleeding, uterine, unusual or unexpected; cancer, endometrial; discomfort, pain, or ulceration, vaginal, due to a foreign object* (feeling of vaginal pressure; vaginal burning or pain) [with use of estradiol vaginal insert]; *hyperplasia, endometrial; proliferation, endometrial, risk of; spotting, uterine, unusual or unexpected.*

CHEST: *enlargement, breast; pain, breast; embolism, pulmonary, increased risk of; infarction, myocardial, increased risk of.*

BACK: *pain.*

GENERALITIES: *cancer, endometrial; infarction, myocardial, increased risk of; thrombosis, venous, increased risk of.*

Estrogens and Progestins (Ovarian Hormone Therapy) (Systemic)

Commercial name(s): *Activella; Ortho-Prefest; Femhrt.*

Category: Estrogen-progestin [17 beta-Estradiol and norgestimate tablets; Ethinyl estradiol and norethindrone tablets]; Ovarian hormone therapy agent [17 beta-Estradiol and norgestimate tablets; Ethinyl estradiol and norethindrone tablets]; Osteoporosis prophylactic [17 beta-Estradiol and norgestimate tablets; Ethinyl estradiol and norethindrone tablets].

Conventional indications: Menopause, vasomotor symptoms of (treatment), Vaginal atrophy (treatment), or Vulvar atrophy (treatment) [17 beta-Estradiol and norgestimate tablets and estradiol and norethindrone tablets]; Osteoporosis, postmenopausal (prophylaxis) [17 beta-Estradiol and norgestimate tablets, ethinyl estradiol and norethindrone tablets, and estradiol and norethindrone tablets].

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental.*

VERTIGO: *dizziness.*

HEAD: headache.

STOMACH: nausea; vomiting.

ABDOMEN: flatulence (bloating or gas); dysfunction, liver; obstruction, gallbladder; pancreatitis (nausea and vomiting; pains in stomach, side, or abdomen; yellow eyes or skin).

GENITALIA FEMALE: bleeding, vaginal; vaginitis; hyperplasia, endometrial (change in vaginal discharge; pain or feeling of pressure in pelvis; vaginal bleeding).

RESPIRATION: infection, upper respiratory tract (cough, fever, sneezing, or sore throat).

CHEST: pain, breast; tenderness, breast; tumors, breast (breast lumps; discharge from nipple).

BACK: pain.

EXTREMITIES: aches, muscle; edema, peripheral (swelling of feet and lower legs; rapid weight gain).

SLEEP: insomnia (sleeplessness).

GENERALITIES: aches, muscle; edema, peripheral (swelling of feet and lower legs; rapid weight gain); fatigue (general feeling of tiredness); flu-like symptoms; hypertension (dizziness or light-headedness; headache); infection, upper respiratory tract (cough, fever, sneezing, or sore throat); pancreatitis (nausea and vomiting; pains in stomach, side, or abdomen; yellow eyes or skin); thrombus formation (severe or sudden headache; sudden loss of coordination; pains in chest, groin, or leg, especially calf; sudden and unexplained shortness of breath ; sudden slurred speech; sudden vision changes; weakness or numbness in arm or leg); tumors, breast (breast lumps; discharge from nipple).

Estrogens and Progestins Oral Contraceptives (Systemic)

Commercial name(s): Alesse; Brevicon; Brevicon 0.5/35; Brevicon 1/35; Cyclen; Cyclessa; Demulen 1/35; Demulen 1/50; Demulen 30; Demulen 50; Desogen; Estrostep; Estrostep Fe; Genora 0.5/35; Genora 1/35; Genora 1/50; Intercon 0.5/35; Intercon 1/35; Intercon 1/50; Jenest; Levlen; Levlite; Levora 0.15/30; Lo/Ovral; Loestrin 1.5/30; Loestrin 1/20; Loestrin Fe 1.5/30; Loestrin Fe 1/20; Marvelon; Min-Ovral; Minestrin 1/20; Mircette; ModiCon; N.E.E. 1/35; N.E.E. 1/50; Necon 0.5/35; Necon 1/35; Necon 1/50; Necon 10/11; Nelova 10/11; Nelova 0.5/35E; Nelova 1/35E; Nelova 1/50M; Nordette; Norethin 1/35E; Norethin 1/50M; Norinyl 1+35; Norinyl 1+50; Norinyl 1/50; Ortho 0.5/35; Ortho 1/35; Ortho 10/11; Ortho 7/7/7; Ortho Tri-Cyclen; Ortho-Cept; Ortho-Cyclen; Ortho-Novum 1/35; Ortho-Novum 1/50; Ortho-Novum 10/11; Ortho-Novum 7/7/7; Ovcon-35; Ovcon-50; Ovral; Select 1/35; Synphasic; Tri-Cyclen; Tri-Levlen; Tri-Norinyl; Triphasil; Triquilar; Trivora; Zovia 1/35E; Zovia 1/50E.

Category: Contraceptive, systemic [Desogestrel and Ethinyl Estradiol; Ethynodiol Diacetate and Ethinyl Estradiol; Levonorgestrel and Ethinyl Estradiol; Norethindrone Acetate and Ethinyl Estradiol; Norethindrone and Ethinyl Estradiol; Norethindrone and Mestranol; Norgestimate and Ethinyl Estradiol; Norgestrel and Ethinyl Estradiol]; Antiacne agent, systemic [Norethindrone Acetate and Ethinyl Estradiol (Triphasic formulation only); Norgestimate and Ethinyl Estradiol (Triphasic formulation only)]; Antiendometriotic agent

[Desogestrel and Ethinyl Estradiol; Ethynodiol Diacetate and Ethinyl Estradiol; Levonorgestrel and Ethinyl Estradiol; Norethindrone Acetate and Ethinyl Estradiol; Norethindrone and Ethinyl Estradiol; Norethindrone and Mestranol; Norgestimate and Ethinyl Estradiol; Norgestrel and Ethinyl Estradiol]; Contraceptive, postcoital (systemic) [Levonorgestrel and Ethinyl Estradiol ; Norgestrel and Ethinyl Estradiol]; Estrogen-progestin [Desogestrel and Ethinyl Estradiol; Ethynodiol Diacetate and Ethinyl Estradiol; Levonorgestrel and Ethinyl Estradiol; Norethindrone Acetate and Ethinyl Estradiol; Norethindrone and Ethinyl Estradiol; Norethindrone and Mestranol; Norgestimate and Ethinyl Estradiol; Norgestrel and Ethinyl Estradiol]; Gonadotropin inhibitor, female, noncontraceptive use [Desogestrel and Ethinyl Estradiol; Ethynodiol Diacetate and Ethinyl Estradiol; Levonorgestrel and Ethinyl Estradiol; Norethindrone Acetate and Ethinyl Estradiol; Norethindrone and Ethinyl Estradiol; Norethindrone and Mestranol; Norgestimate and Ethinyl Estradiol; Norgestrel and Ethinyl Estradiol].

Conventional indications: Pregnancy, prevention of; Contraception, emergency postcoital (prophylaxis) [A combination of levonorgestrel or norgestrel with ethinyl estradiol]; Acne vulgaris (treatment) [The triphasic formulation of norgestimate and ethinyl estradiol and the triphasic formulation of norethindrone and ethinyl estradiol]; Amenorrhea (treatment), Dysfunctional uterine bleeding (DUB) (treatment), Dysmenorrhea (treatment) or Hypermenorrhea (treatment) [Norethindrone and mestranol tablets (dose of 1/50)] and other estrogen-progestin combinations and doses]; Endometriosis (prophylaxis and treatment) [Norethindrone and mestranol tablets (dose of 1/50)] and other estrogen-progestin combinations and doses]; Hirsutism, female (treatment and treatment adjunct); Hyperandrogenism, ovarian (treatment and treatment adjunct); Polycystic ovary syndrome (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *mental depression, slight worsening* (in pre-existing conditions).

VERTIGO: *dizziness.*

HEAD: *headaches or migraines, worsening or increased frequency of; infarction, cerebral; ischemia, cerebral; stroke.*

FACE: *acne; hair, facial, gain or loss of.*

STOMACH: *nausea; vomiting.*

ABDOMEN: *bloating; cramping, abdominal; adenomas, hepatic cell, benign* (swelling, pain, or tenderness in upper abdominal area); *carcinoma, hepatocellular* (pains in stomach, side, or abdomen, or yellow eyes or skin) (primarily in women having a predisposing or pre-existing condition, especially those who smoke tobacco); *hyperplasia, hepatic focal nodular* (pains in stomach, side, or abdomen, or yellow eyes or skin) (primarily in women having a predisposing or pre-existing condition, especially those who smoke tobacco).

GENITALIA FEMALE: *contraceptive* (inhibition of the ovulation); *gonadotropin inhibitor; amenorrhea* (complete stoppage of menstrual bleeding over several months) (especially during the first 3 months of oral contraceptive use); **bleeding, breakthrough** (vaginal bleeding between regular menstrual periods, which may require the use of a pad or a tampon) (especially during the first 3 months of oral contraceptive use); **bleeding, intermenstrual; bleeding pattern, menstrual, changes in; menses, scanty** (very light menstrual bleeding) (especially during the first 3 months of oral contraceptive use);

metrorrhagia (prolonged bleeding) (especially during the first 3 months of oral contraceptive use); **spotting** (light vaginal bleeding between regular menstrual periods) (especially during the first 3 months of oral contraceptive use); candidiasis, vaginal (vaginal discharge, thick, white, or curd-like, or vaginal itching or other irritation); libido changes (increase or decrease of interest in sexual intercourse); vaginitis, sporadic or recurrent (vaginal discharge, thick, white, or curd-like, or vaginal itching or other irritation).

CHEST: pain, breast; swelling, breast; tenderness, breast; cancer, breast, invasive; embolism, pulmonary; galactorrhea; infarction, coronary; ischemia, coronary; tumors, breast (lumps in breast) (primarily in women having a predisposing or pre-existing condition).

EXTREMITIES: retention, sodium and fluid (swelling of ankles and feet).

SLEEP: drowsiness (sleepiness; unusual tiredness or weakness).

SKIN: acne; hair, body, gain or loss of; melasma (brown, blotchy spots on exposed skin); sensitivity to sun, increased.

GENERALITIES: gonadotropin inhibitor (in females); **retention, sodium and fluid** (swelling of ankles and feet); **tiredness or weakness, unusual; blood pressure, increase in; glucose tolerance, mildly reduced** (faintness; nausea; skin paleness; sweating); hair, body, gain or loss of; hypertension, worsening or exacerbation; weight gain or loss; adenoma; cancer, breast, invasive; carcinoma, hepatocellular (pains in stomach, side, or abdomen, or yellow eyes or skin) (primarily in women having a predisposing or pre-existing condition, especially those who smoke tobacco); death; hepatitis (pains in stomach, side, or abdomen, or yellow eyes or skin) (primarily in women having a predisposing or pre-existing condition, especially those who smoke tobacco); hypovolemic shock; thromboembolism or thromboembolic events; thrombosis, deep vein; tumors, breast (lumps in breast) (primarily in women having a predisposing or pre-existing condition); fatigue (sleepiness; unusual tiredness or weakness).

Eszopiclone (Systemic)

Commercial name(s): *Estorra; Lunesta*.

Category: Sedative-hypnotic.

Conventional indications: Insomnia (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: peacefulness (serenity, calm); confusion (mood or mental changes); depression (discouragement, feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); hallucinations (seeing, hearing, or feeling things that are not there); amnesia (loss of memory; problems with memory); coma (change in consciousness; loss of consciousness); consciousness impaired (confusion; unconsciousness; very drowsy or sleepy).

VERTIGO: dizziness.

HEAD: headache.

MOUTH: dryness; taste, unpleasant.

STOMACH: **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); **nausea**; vomiting.

RECTUM: diarrhea.

BLADDER: infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

GENITALIA MALE: libido decreased (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection).

GENITALIA FEMALE: dysmenorrhea (pain, cramps, heavy bleeding).

CHEST: gynecomastia, in males (swelling of the breasts or breast soreness).

SLEEP: **somnolence** (sleepiness or unusual drowsiness).

DREAMS: abnormal dreams.

SKIN: pruritus (itching skin); rash.

GENERALITIES: **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **pain**; infection, viral (chills; cough or hoarseness; fever; cold flu-like symptoms); injury, accidental; neuralgia (nerve pain); coma (change in consciousness; loss of consciousness).

Secondary Actions or Rebound Effects: **nervousness**; anxiety (fear; nervousness).

Etanercept (Systemic)

Commercial name(s): *Enbrel*.

Category: Antirheumatic (biologic response modifier).

Conventional indications: Ankylosing spondylitis (treatment); Arthritis, rheumatoid (treatment); Arthritis, rheumatoid, juvenile (treatment); Psoriasis (treatment); Psoriatic arthritis (treatment); Reactive arthritis (treatment); Inflammatory bowel disease arthritis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression* (discouragement, feeling sad or empty, irritability, lack of appetite, loss of interest or pleasure, tiredness, trouble concentrating, trouble sleeping) (in adult patients and in pediatric patients with juvenile rheumatoid arthritis); *personality disorder* (change in personality) (in pediatric patients with juvenile rheumatoid arthritis).

VERTIGO: **dizziness**.

HEAD: **headache** (more common in children); alopecia (hair loss, thinning of hair); *hydrocephalus, normal pressure* (confusion; drowsiness; headache); *ischemia, cerebral* (confusion, headache, severe numbness, especially on one side of the face or body); *stroke* (confusion, difficulty in speaking, slow speech, inability to speak, inability to move arms, legs, or facial muscles, double vision, headache).

EYE: *dryness*; inflammation, ocular (itching, redness, or tearing of eye); *angioedema* (large, hive-like swelling on eyelids); *neuritis, optic* (blindness, blue-yellow color blindness, blurred vision, decreased vision, eye pain).

NOSE: **rhinitis** (runny nose); sinusitis, severe (pain or tenderness around eyes and cheekbones, fever, stuffy or runny nose, headache, cough, shortness of breath or troubled breathing, tightness of chest or wheezing).

FACE: angioedema (large, hive-like swelling on face, lips).

MOUTH: dryness; ulcer, mouth (irritation or soreness of mouth); angioedema (large, hive-like swelling on tongue); sense of taste altered.

THROAT: **pharyngitis** (pain or burning in throat); angioedema (large, hive-like swelling on throat); esophagitis (difficulty in swallowing; pain or burning in throat; chest pain; heartburn; vomiting; sores, ulcers, or white spots on lips or tongue or inside the mouth) (in pediatric patients with juvenile rheumatoid arthritis).

STOMACH: **nausea** (more common in children); **vomiting** (more common in children); anorexia (loss of appetite); dyspepsia (heartburn); gastritis (burning feeling in chest or stomach, tenderness in stomach area, stomach upset, indigestion) (in pediatric patients with juvenile rheumatoid arthritis); gastroenteritis (abdominal or stomach pain, diarrhea, loss of appetite, nausea, weakness) (in pediatric patients with juvenile rheumatoid arthritis); hemorrhage, gastrointestinal (black, tarry stools bloody stools, vomiting of blood or material that looks like coffee grounds).

ABDOMEN: **pain**, **abdominal** (more common in children); abscess, abdominal (stomach discomfort and/or pain); appendicitis (stomach or lower abdominal pain; severe cramping; bloating; nausea; vomiting; fever); cholecystitis (severe stomach pain with nausea or vomiting); gastroenteritis (abdominal or stomach pain, diarrhea, loss of appetite, nausea, weakness) (in pediatric patients with juvenile rheumatoid arthritis); hemorrhage, gastrointestinal (black, tarry stools bloody stools, vomiting of blood or material that looks like coffee grounds); pancreatitis (bloating, chills, constipation, darkened urine, fast heartbeat, fever, indigestion, loss of appetite, nausea, pains in stomach, side, or abdomen, possibly radiating to the back, vomiting, yellow eyes or skin); perforation, intestinal (severe abdominal pain, cramping, burning, bloody, black, or tarry stools, trouble breathing, vomiting of material that looks like coffee grounds, severe and continuing nausea, heartburn and/or indigestion).

RECTUM: diarrhea; hemorrhage, gastrointestinal (black, tarry stools bloody stools, vomiting of blood or material that looks like coffee grounds).

BLADDER: infection, urinary tract (bladder pain, bloody or cloudy urine, difficult, burning, or painful urination, frequent urge to urinate, lower back or side pain) (in pediatric patients with juvenile rheumatoid arthritis).

KIDNEYS: pyelonephritis (chills; fever; frequent or painful urination; headache; stomach pain); calculus (blood in urine; nausea and vomiting; pain in groin or genitals; sharp back pain just below ribs); glomerulonephropathy, membranous (cloudy or bloody urine; high blood pressure; swelling of face, feet or lower legs); infection, urinary tract (bladder pain, bloody or cloudy urine, difficult, burning, or painful urination, frequent urge to urinate, lower back or side pain) (in pediatric patients with juvenile rheumatoid arthritis).

GENITALIA MALE: angioedema (large, hive-like swelling on sex organs).

GENITALIA FEMALE: angioedema (large, hive-like swelling on sex organs).

RESPIRATION: **infections**, **respiratory tract** (cough; fever; sneezing; sore throat); bronchitis (congestion in chest; cough); pneumonia (cough; fever; shortness of breath;

sneezing; sore throat; tightness in chest or wheezing); *dyspnea* (shortness of breath, difficult or labored breathing, tightness in chest, wheezing).

COUGH: *cough*.

CHEST: *bronchitis* (congestion in chest; cough); *pneumonia* (cough; fever; shortness of breath; sneezing; sore throat; tightness in chest or wheezing); *congestive heart failure, new-onset* (chest pain, decreased urine output, dilated neck veins, extreme fatigue, irregular breathing, irregular heartbeat, shortness of breath, swelling of face, fingers, feet, or lower legs, tightness in chest, troubled breathing, weight gain, wheezing); *embolism, pulmonary* (anxiety, chest pain, cough, fainting, fast heartbeat, sudden shortness of breath or troubled breathing, dizziness or lightheadedness); *infarction or ischemia, myocardial* (chest pain or discomfort, pain or discomfort in arms, jaw, back or neck, shortness of breath, nausea, sweating, vomiting); *lung disease, interstitial* (cough, difficult breathing, fever, shortness of breath); *lung disorder, prior, worsening of* (difficulty in breathing worsening); *pain, chest; pulmonary disease* (shortness of breath).

EXTREMITIES: *abscess, foot* (itching, pain, redness, or swelling on the foot); *arthritis, septic* (muscle or joint stiffness, tightness, or rigidity) (rebound effect?); *osteomyelitis* (increase in bone pain); *ulcer, leg* (itching, pain, redness, or swelling on the leg, sore on leg); *angioedema* (large, hive-like swelling on hands, legs, feet); *arthritis, tuberculous* (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving) (in pediatric patients with juvenile rheumatoid arthritis); *polymyositis* (fever, joint pain, muscle tenderness, weakness, or pain, skin rash unusual tiredness or weakness, weight loss); *thrombosis, deep vein* (pain, redness, or swelling in arm or leg).

FEVER: *fever*.

SKIN: *alopecia* (hair loss, thinning of hair); *cellulitis* (itching, pain, swelling, or redness on skin); *nodules, subcutaneous* (bumps below the skin); *skin rash; vasculitis, cutaneous* (blisters on skin) (in pediatric patients with juvenile rheumatoid arthritis); *cancers, skin, non-melanoma; pruritus* (itching skin); *ulcer, cutaneous* (sores on the skin) (in pediatric patients with juvenile rheumatoid arthritis); *urticaria* (hives or welts, itching, redness of skin, skin rash).

GENERALITIES: *infection* (fever or chills); **infections, respiratory tract** (cough; fever; sneezing; sore throat); **injection site reaction** (bleeding or bruising; itching ; pain; swelling; redness); *allergic reaction* (cough, difficulty swallowing, dizziness, fast heartbeat, hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue, shortness of breath, skin rash, tightness in chest, unusual tiredness or weakness, wheezing); *alopecia* (hair loss, thinning of hair); *arthritis, septic* (muscle or joint stiffness, tightness, or rigidity) (rebound effect?); *asthenia* (lack or loss of strength); *fatigue* (unusual tiredness or weakness); *infection, wound* (red, tender, or oozing skin at incision); *osteomyelitis* (increase in bone pain); *pain, generalized; sepsis* (chills; fever; fast heartbeat); *sinusitis, severe* (pain or tenderness around eyes and cheekbones, fever, stuffy or runny nose, headache, cough, shortness of breath or troubled breathing, tightness of chest or wheezing); *abscess with bacteremia* (accumulation of pus; swollen, red, tender area of infection; fever) (in pediatric patients with juvenile rheumatoid arthritis); *adenopathy* (swollen glands); *anemia* (pale skin, troubled breathing, exertional); *anemia, aplastic* (chest pain, chills, cough, fever, headache, shortness of breath, sores, ulcers, or white spots on lips or in mouth, swollen or painful glands, tightness in chest, unusual bleeding or bruising,

unusual tiredness or weakness, wheezing); *cancers, skin, non-melanoma; coagulopathy* (unusual bleeding or bruising) (in pediatric patients with juvenile rheumatoid arthritis); *diabetes mellitus, type 1* (blurred vision, dry mouth, fatigue, flushed, dry skin, fruit-like breath odor, increased hunger, increased thirst, increased urination, loss of consciousness, nausea, stomach ache, sweating, troubled breathing, unexplained weight loss, vomiting) (in pediatric patients with juvenile rheumatoid arthritis); *flu syndrome* (chills, cough, diarrhea, fever, general feeling of discomfort or illness, headache, joint pain, loss of appetite, muscle aches and pains); *hypertension* (dizziness; headache, severe or continuing); *hypotension* (light-headedness or fainting); *infarction or ischemia, myocardial* (chest pain or discomfort, pain or discomfort in arms, jaw, back or neck, shortness of breath, nausea, sweating, vomiting); *infection, varicella* (skin rash on face, scalp, or stomach); *leukopenia* (black, tarry stools; painful or difficult urination); *lupus-like syndrome with manifestations including rash consistent with subacute or discoid lupus* (fever or chills, general feeling of discomfort or illness or weakness); *lymphadenopathy* (swollen, painful, or tender lymph glands in neck, armpit, or groin); *lymphoma* (swollen glands; weight loss; general feeling of illness; black, tarry stools; yellow skin and eyes); *lymphoma, non-Hodgkin's; malignancies; multiple sclerosis; myelitis, transverse, or other demyelinating conditions; neutropenia* (black, tarry, stools, chills, cough, fever, lower back or side pain, painful or difficult urination, pale skin, shortness of breath, sore throat, ulcers, sores, or white spots in mouth, unusual bleeding or bruising, unusual tiredness or weakness); *pancreatitis* (bloating, chills, constipation, darkened urine, fast heartbeat, fever, indigestion, loss of appetite, nausea, pains in stomach, side, or abdomen, possibly radiating to the back, vomiting, yellow eyes or skin); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *paresthesia* (burning, crawling, itching, numbness, prickling, "pins and needles", or tingling feelings); *polymyositis* (fever, joint pain, muscle tenderness, weakness, or pain, skin rash unusual tiredness or weakness, weight loss); *seizures* (convulsions, muscle spasm or jerking of all extremities, sudden loss of consciousness, loss of bladder control); *septic shock, streptococcal, group A* (chills; confusion; dizziness; lightheadedness; fainting; fast heartbeat; fever; rapid, shallow breathing); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *thrombophlebitis* (changes in skin color, pain, tenderness, swelling of foot or leg); *thrombosis, deep vein* (pain, redness, or swelling in arm or leg); *tuberculosis* (chest pain; cough; coughing or spitting up blood; difficulty in breathing; sore throat; muscle aches; night sweats; sudden high fever or low-grade fever for months; unusual tiredness); *tumors, solid, non-cutaneous; vasodilation (flushing)* (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or light-headedness; sweating); *weight gain*.

DIAGNOSTIC TESTS: *anemia; anemia, aplastic; calculus; leukopenia; neutropenia; pancytopenia; thrombocytopenia.*

Secondary Actions or Rebound Effects: *pain, joint; bursitis* (pain and inflammation at the joints); *rheumatoid factor positive.*

Ethambutol (Systemic)

Commercial name(s): *Etibi; Myambutol.*

Category: Antibacterial (antimycobacterial).

Conventional indications: Tuberculosis (treatment); Mycobacterial infections, atypical (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; disorientation.*

HEAD: *headache.*

EYE: *neuritis, optic, retrobulbar* (blurred vision, eye pain, red-green color blindness, or any loss of vision).

VISION: *visual changes, unilateral or bilateral.*

STOMACH: *appetite, loss of; nausea; vomiting.*

ABDOMEN: *pain, abdominal.*

EXTREMITIES: *arthritis, gouty, acute* (chills; pain and swelling of joints, especially big toe, ankle, or knee; tense, hot skin over affected joints); *neuritis, peripheral* (numbness, tingling, burning, pain, or weakness in hands or feet).

GENERALITIES: *arthritis, gouty, acute* (chills; pain and swelling of joints, especially big toe, ankle, or knee; tense, hot skin over affected joints); *hypersensitivity* (skin rash; fever; joint pain); *neuritis, peripheral* (numbness, tingling, burning pain, or weakness in hands or feet).

Ethanolamine Oleate (Parenteral-Local)

Commercial name(s): *Ethamolin.*

Category: Sclerosing agent.

Conventional indications: Esophageal varices, bleeding (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *abscess, brain; meningitis.*

THROAT: *dysphagia; ulceration, esophageal; stricture, esophageal; perforation, esophageal;* necrosis of the esophagus, intramural, severe (during injection sclerotherapy of esophageal varices).

STOMACH: *gastropathy, portal* (following endoscopic injection sclerotherapy of esophageal varices).

KIDNEYS: *failure, renal, acute.*

RESPIRATION: *pneumonia, including aspiration pneumonia.*

CHEST: *effusions, pleural; infiltrates, pulmonary; pain, chest; x-rays, chest, abnormal; pneumonia, including aspiration pneumonia.*

BACK: *paralysis, spinal cord.*

FEVER: *fever.*

SKIN: *skin reactions, generalized; urticaria.*

GENERALITIES: *bacteremia; thrombosis, portal vein; allergic reactions; anaphylactic shock, fatal* (in a patient who had a known allergic disposition and received a larger than

normal volume of ethanolamine oleate); *anaphylaxis*; *coagulation*, *intravascular*, *disseminated*; *infection*, *CNS*; *paralysis*, *spinal cord*; death.

DIAGNOSTIC TESTS: x-rays, chest, abnormal.

Ethchlorvynol (Systemic)

Commercial name(s): *Placidyl*.

Category: Sedative-hypnotic.

Conventional indications: Insomnia (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *peacefulness* (serenity, calm); *clumsiness*; *confusion*; *anorexia* (loss of appetite); *delirium* (confusion as to time, place, or person); *dizziness*; *hallucinations*; *memory loss*; coma, prolonged.

VERTIGO: *dizziness*; *light-headedness*.

EYE: nystagmus (unusual movements of the eye).

VISION: *blurred vision*; amblyopia, toxic (decrease in or change in vision); diplopia (double vision); scotoma (change in vision).

FACE: numbness.

MOUTH: *aftertaste*, unpleasant.

STOMACH: *indigestion*; *nausea*; *pain*; *vomiting*; *anorexia* (loss of appetite).

RESPIRATION: depression, respiratory (shortness of breath or slow or troubled breathing).

CHEST: bradycardia (slow heartbeat).

EXTREMITIES: *clumsiness*; *unsteadiness*; ataxia (shakiness and unsteady walk; clumsiness; unsteadiness; trembling, or other problems with muscle control or coordination); hyperreflexia (overactive reflexes); neuropathy, peripheral (numbness, tingling, pain, or weakness in hands or feet).

SLEEP: *drowsiness*, *daytime*.

FEVER: hypothermia (low body temperature).

GENERALITIES: *hypotension* (low blood pressure); *tiredness or weakness*, *unusual*; *allergic reaction* (skin rash or hives); *jaundice*, *cholestatic* (darkening of urine; itching; pale stools; yellow eyes or skin); *thrombocytopenia* (unusual bleeding or bruising); *weight loss*, *unexplained*; bradycardia (slow heartbeat); coma, prolonged; hyperreflexia (overactive reflexes); hypothermia (low body temperature); neuropathy, peripheral (numbness, tingling, pain, or weakness in hands or feet); pancytopenia (fever, chills, or sore throat; pale skin; unusual bleeding or bruising; unusual tiredness or weakness); tremors.

DIAGNOSTIC TESTS: *thrombocytopenia*; pancytopenia.

Secondary Actions or Rebound Effects: *paradoxical reaction* (unusual excitement, nervousness, or restlessness; dizziness or faintness; muscle weakness); *insomnia* (trouble in sleeping); *irritability*; *nervousness*; *restlessness*; *seizures*; *slurred speech*; *sweating*; *trembling*; *twitching*, muscle.

Ethionamide (Systemic)

Commercial name(s): *Trecator-SC*.

Category: Antibacterial (antimycobacterial; antileprosy agent).

Conventional indications: Tuberculosis (treatment); Leprosy (treatment); Mycobacterial infections, atypical (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *psychiatric disturbances* (mental depression, confusion, mood or other mental changes).

VERTIGO: **hypotension, orthostatic** (dizziness, especially when getting up from a lying or sitting position).

EYE: *neuritis, optic* (blurred vision or loss of vision, with or without eye pain).

MOUTH: **sore mouth; taste, metallic.**

EXTERNAL THROAT: *goiter or hypothyroidism* (changes in menstrual periods; coldness; decreased sexual ability in males; dry, puffy skin; swelling of front part of neck; weight gain).

STOMACH: **appetite, loss of; nausea; vomiting.**

CHEST: *gynecomastia* (enlargement of the breasts in males).

EXTREMITIES: *neuritis, peripheral* (clumsiness or unsteadiness; numbness, tingling, burning, or pain in hands and feet).

SKIN: *rash.*

GENERALITIES: **hypotension, orthostatic** (dizziness, especially when getting up from a lying or sitting position); *hepatitis or jaundice* (yellow eyes or skin); *neuritis, peripheral* (clumsiness or unsteadiness; numbness, tingling, burning, or pain in hands and feet); *hypoglycemia* (difficulty in concentrating, faster heartbeat, increased hunger, nervousness, shakiness).

DIAGNOSTIC TESTS: *hypoglycemia.*

Etidronate (Systemic)

Commercial name(s): *Didronel*.

Category: Bone resorption inhibitor; Antihypercalcemic.

Conventional indications: Paget's disease of bone (treatment) [Oral etidronate]; Ossification, heterotopic (prophylaxis and treatment) [Oral etidronate]; Hypercalcemia, associated with neoplasms (treatment adjunct) [Parenteral etidronate].

Primary Actions or Pathogenetic Symptoms

FACE: *angioedema* (swelling of the face, lips).

MOUTH: *taste, loss of, or metallic, or altered* [parenteral dosage form]; *angioedema* (swelling of the tongue).

STOMACH: **nausea** (at higher doses).

RECTUM: **diarrhea** (at higher doses).

LARYNX AND TRACHEA: *angioedema* (swelling of the glottis, and/or larynx).

EXTREMITIES: *exostosis* (bone growth); **pain, bone, or tenderness, increased, continuing, or recurrent** (in patients with Paget's disease); *osteomalacia* (bone fractures, especially of the femur).

SKIN: *itching; skin rash; urticaria* (hives).

GENERALITIES: *exostosis* (bone growth); *hypocalcemia*; **pain, bone, or tenderness, increased, continuing, or recurrent** (in patients with Paget's disease); *osteomalacia* (bone fractures, especially of the femur); *allergic reaction, specifically; angioedema* (swelling of the extremities, face, lips, tongue, glottis, and/or larynx).

DIAGNOSTIC TESTS: *hypocalcemia*.

Etomidate (Systemic)

Commercial name(s): *Amidate*.

Category: Anesthetic, general; Anesthesia adjunct.

Conventional indications: Anesthesia, general; Anesthesia, general, adjunct.

Primary Actions or Pathogenetic Symptoms

MIND: *anesthesia* (unconsciousness).

STOMACH: *nausea; vomiting; hiccups*.

RESPIRATION: *breathing, fast or slow; apnea, brief periods of*.

CHEST: *heartbeat, irregular or fast or slow*.

EXTREMITIES: **muscle movements, involuntary, temporary**.

GENERALITIES: *anesthesia*; **muscle movements, involuntary, temporary; pain, temporary, at injection site; blood pressure, increase or decrease in; heartbeat, irregular or fast or slow; adrenal gland failure; salt and water balance, abnormal; shock**.

DIAGNOSTIC TESTS: *salt and water balance, abnormal*.

Etonogestrel and Ethinyl Estradiol (Vaginal)

Commercial name(s): *NuvaRing*.

Category: Contraceptive (vaginal).

Conventional indications: Pregnancy, prevention of.

Primary Actions or Pathogenetic Symptoms

MIND: *lability, emotional* (crying; depersonalization; dysphoria; euphoria; mental depression; paranoia; quick to react or overreact emotionally; rapidly changing moods); *depression, mental* (mild feeling of sadness or discouragement that come and go).

HEAD: **headache; hemorrhage, cerebral** (blurred vision; headache sudden and severe; inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe); *migraine* (headache, severe and throbbing); *thrombosis, cerebral* (confusion; numbness of hands).

EYE: *curvature, corneal, steepening of* (vision changes); *intolerance, contact lenses; thrombosis, retinal* (decreased vision or other changes in vision).

NOSE: sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

STOMACH: nausea; cramps; vomiting.

ABDOMEN: adenomas, hepatic, or benign liver tumors (swelling, pain, or tenderness in upper abdominal area); *bloating* (swollen); *cramps, abdominal* (stomach cramps); *gallbladder disease* (abdominal fullness; gaseous abdominal pain; recurrent fever; yellow eyes or skin); *thrombosis, mesenteric* (abdominal pain usually after eating a meal; constipation; diarrhea; nausea; vomiting).

GENTALIA FEMALE: contraceptive (inhibition of the ovulation); **leukorrhea** (increased clear or white vaginal discharge); **vaginitis** (itching of the vagina or genital area; pain during sexual intercourse; thick, white vaginal discharge with no odor or with a mild odor); *amenorrhea* (absent, missed, or irregular menstrual periods; stopping of menstrual bleeding); *bleeding, breakthrough* (medium to heavy, irregular vaginal bleeding between regular monthly periods, which may require the use of a pad or a tampon); *candidiasis, vaginal* (itching of the vagina or outside genitals; pain during sexual intercourse; thick, white curd-like vaginal discharge without odor or with mild odor); *erosion, cervical* (light vaginal bleeding between periods and after intercourse); *infertility, temporary after discontinuation* (trouble getting pregnant); *lactation, decreased, postpartum* (decreased amount or quality of milk); *menstrual disturbances* (menstrual changes); *secretion, cervical* (change in amount of vaginal discharge; bloody vaginal discharge); *spotting* (light vaginal bleeding between regular menstrual periods); bleeding, vaginal.

RESPIRATION: infection, upper respiratory (cough; sore throat).

CHEST: breast symptoms (pain, soreness, swelling, or discharge from the breast or breasts); *embolism, pulmonary* (anxiety; chest pain, cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting).

SKIN: melasma (brown, blotchy spots on exposed skin); *rash*.

GENERALITIES: infection, upper respiratory (cough; sore throat); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); **weight gain; adenomas, hepatic, or benign liver tumors** (swelling, pain, or tenderness in upper abdominal area); *edema* (swelling); *gallbladder disease* (abdominal fullness; gaseous abdominal pain; recurrent fever; yellow eyes or skin); *hypertension* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); *infertility, temporary after discontinuation* (trouble getting pregnant); *jaundice, cholestatic* (abdominal or stomach pain; chills; clay-colored stools; dark urine; diarrhea; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *thromboembolism, arterial* (severe headaches of sudden onset; sudden loss of coordination; pains in chest, groin, or legs, especially calves of legs; sudden onset of shortness of breath for no apparent reason; sudden onset of slurred speech; sudden vision changes); *thrombophlebitis* (changes in skin color; pain; tenderness;

swelling of foot or leg); *thrombosis, venous* (tenderness, pain, swelling; warmth; skin discoloration; prominent superficial veins over affected area); *tolerance to carbohydrates, reduced* (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); *weight loss*.

Etoposide (Systemic)

Commercial name(s): *Etopophos; Toposar; VePesid*.

Category: Antineoplastic.

Conventional indications: Tumors, germ cell, testicular (treatment) [Etoposide injection]; Carcinoma, lung, small cell (treatment); Lymphomas, Hodgkin's (treatment); Lymphomas, non-Hodgkin's (treatment); Leukemia, acute nonlymphocytic (treatment); Ewing's sarcoma (treatment); Kaposi's sarcoma, autoimmune deficiency syndrome (AIDS)-associated (treatment); Carcinoma, adrenocortical (treatment); Carcinoma, gastric (treatment); Hepatoblastoma (treatment); Leukemia, acute lymphocytic (treatment); Lymphomas, cutaneous T-cell (treatment); Multiple myeloma (treatment); Neuroblastoma (treatment); Sarcomas, soft tissue (treatment); Tumors, brain, primary (treatment); Tumors, trophoblastic, gestational (treatment); Carcinoma, lung, non-small cell (treatment); Carcinoma, endometrial (treatment); Carcinoma, unknown primary site (treatment); Myelodysplastic syndromes (treatment); Retinoblastoma (treatment); Thymoma (treatment); Wilms' tumor (treatment); Osteosarcoma (treatment); Tumors, germ cell, ovarian (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *alopecia* (loss of hair).

MOUTH: *stomatitis* (sores in mouth or on lips).

STOMACH: *appetite, loss of; nausea; vomiting*.

ABDOMEN: *toxicity, hepatic* (higher-than-recommended doses).

RECTUM: *diarrhea*.

RESPIRATION: *apnea, hypersensitivity-associated*.

EXTREMITIES: *neurotoxicity* (difficulty in walking; numbness or tingling in fingers and toes; weakness).

SKIN: *alopecia* (loss of hair); *flushing; itching; rash; rash, pruritic, erythematous, maculopapular*.

GENERALITIES: *alopecia* (loss of hair); *anemia* (unusual tiredness or weakness); *leukopenia* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *tiredness, unusual; anaphylaxis* (fast heartbeat; fever or chills; shortness of breath or wheezing; back pain; cough; loss of consciousness; sweating; swelling of face or tongue; tightness in throat); *death* (due to anaphylaxis); *flushing; hypotension, temporary* (by intravenous infusion over a period of less than 30 minutes); *metabolic acidosis* (higher-than-recommended doses); *neurotoxicity*

(difficulty in walking; numbness or tingling in fingers and toes; weakness); *phlebitis*, *chemical* (pain at site of injection).

DIAGNOSTIC TESTS: **anemia; leukopenia; thrombocytopenia;** *metabolic acidosis*.

Exemestane (Systemic)

Commercial name(s): *Aromasin*.

Category: Antineoplastic.

Conventional indications: Carcinoma, breast (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety; depression, mental;** *confusion*.

VERTIGO: **dizziness.**

HEAD: **headache;** *alopecia* (loss of hair).

NOSE: *rhinitis* (runny nose); *sinusitis* (headache).

THROAT: *pharyngitis* (sore throat).

STOMACH: **anorexia** (loss of appetite); **nausea; vomiting;** *appetite, increased* (rebound effect?); *dyspepsia* (stomach upset).

ABDOMEN: **pain, abdominal.**

RECTUM: **constipation;** *diarrhea*.

BLADDER: *infection, urinary tract* (difficult, burning, or painful urination; frequent urge to urinate).

KIDNEYS: *infection, urinary tract* (difficult, burning, or painful urination; frequent urge to urinate).

RESPIRATION: **dyspnea** (shortness of breath; difficult or labored breathing; tightness in chest); *bronchitis* (cough; difficulty breathing; tightness in chest; wheezing or shortness of breath); *infection, upper respiratory tract* (cough; sore throat).

COUGH: **cough.**

CHEST: *bronchitis* (cough; difficulty breathing; tightness in chest; wheezing or shortness of breath); *pain, chest*.

BACK: *pain*.

EXTREMITIES: **edema** (swelling of hands, ankles, feet, or lower legs); *arthralgia* (joint pain); *fracture, pathological* (unexplained broken bone); *lymphedema* (swelling of legs, ankles and feet); *pain, bone*.

SLEEP: **insomnia** (trouble in sleeping).

FEVER: *fever*.

PERSPIRATION: **sweating increased.**

SKIN: **hot flashes;** *alopecia* (loss of hair); *itching; rash*.

GENERALITIES: **asthenia** (tiredness or weakness); **fatigue** (general feeling of tiredness or weakness); **hypertension** (increased blood pressure); **influenza-like symptoms** (chills and fever; diarrhea; cough; general feeling of discomfort or illness); **lymphocytopenia** (fever or chills; cough or hoarseness; lower back or side pain); **pain;** *alopecia* (loss of hair); *arthralgia* (joint pain); *fracture, pathological* (unexplained broken bone); *hypoesthesia* (decreased sense of touch); *infection* (fever or chills; cough or hoarseness; lower back or

side pain; painful or difficult urination); *infection, upper respiratory tract* (cough; sore throat); *pain, bone*; *paresthesia* (burning, tingling or prickly sensations); *sinusitis* (headache); *weakness, generalized*; leukocytosis, acute (chills; cough; eye pain; fever; general feeling of illness; headache; sore throat; unusual tiredness).

DIAGNOSTIC TESTS: *lymphocytopenia*; leukocytosis, acute.

Exenatide (Systemic)

Commercial name(s): *Byetta*.

Category: Antidiabetic agent.

Conventional indications: Diabetes, type 2 (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: feeling jittery; coma.

VERTIGO: dizziness.

HEAD: headache.

STOMACH: *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); **nausea**; **vomiting**; *appetite decreased*; *gastroesophageal reflux disease* (heartburn; vomiting).

RECTUM: diarrhea.

PERSPIRATION: *hyperhidrosis* (increased sweating).

GENERALITIES: *hypoglycemia*; *asthenia* (lack or loss of strength); *immunogenicity*; blood glucose concentrations, rapidly declining (anxiety; blurred vision; chills; cold sweats; coma; confusion; cool pale skin; depression; dizziness; fast heartbeat; headache; increased hunger; nausea; nervousness; nightmares; seizures; shakiness; slurred speech; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *hypoglycemia*.

Ezetimibe (Systemic)

Commercial name(s): *Zetia*.

Category: Antihyperlipidemic.

Conventional indications: Hyperlipidemia (treatment); Sitosterolemia (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: headache.

EYE: *angioedema* (large, hive-like swelling on eyelids).

NOSE: *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling tongue).

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); *angioedema* (large, hive-like swelling on throat).

STOMACH: *nausea; pain, abdominal* (stomach pain).

ABDOMEN: *pain, abdominal* (stomach pain); *cholelithiasis* (abdominal fullness; gaseous abdominal pain; recurrent fever; yellow eyes or skin); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: *diarrhea*.

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: *infection, upper respiratory tract* (headache; sore throat; runny nose; fever).

COUGH: *coughing*.

CHEST: *pain, chest*.

BACK: *pain*.

EXTREMITIES: *myalgia* (muscle pain); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *angioedema* (large, hive-like swelling on hands, legs, feet); *myopathy* (muscular pain, tenderness, wasting or weakness); *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness).

SKIN: *rash*.

GENERALITIES: *hypolipidemic effect; infection, upper respiratory tract* (headache; sore throat; runny nose; fever); *myalgia* (muscle pain); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *fatigue* (unusual tiredness or weakness); *infection, viral* (chills; cough or hoarseness; fever; cold or flu-like symptoms); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *hepatitis* (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); *hypersensitivity reactions, including angioedema and skin rash* (large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs; skin rash); *myopathy* (muscular pain, tenderness, wasting or weakness); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: *cholelithiasis; thrombocytopenia*.

Ezetimibe and Simvastatin (Systemic)

Commercial name(s): *Vytorin*.

Category: Antihyperlipidemic.

Conventional indications: Hyperlipidemia (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache*.

EYE: *angioedema* (large, hive-like swelling on eyelids).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

STOMACH: *nausea*.

ABDOMEN: *cholelithiasis* (abdominal fullness; gaseous abdominal pain; recurrent fever; yellow eyes or skin); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: *infection, upper respiratory tract* (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

EXTREMITIES: *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *pain, extremity* (pain in arms or legs); *angioedema* (large, hive-like swelling on hands, legs, feet).

SKIN: *rash*.

GENERALITIES: *hypolipidemic effect*; *infection, upper respiratory tract* (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *influenza* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *hypersensitivity reaction* (fast heartbeat; fever; hives; itching; irritation; hoarseness; joint pain; stiffness or swelling; rash; redness of skin; shortness of breath; swelling of eyelids, face, lips, hands, or feet; tightness in chest; troubled breathing or swallowing; wheezing); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

DIAGNOSTIC TESTS: *cholelithiasis*.

Factor IX (Systemic)

Commercial name(s): *AlphaNine SD; Bebulin VH; BeneFix; Immunine VH; Konyne 80; Mononine; Profilnine SD; Proplex T.*

Category: Antihemorrhagic.

Conventional indications: Hemophilia B, hemorrhagic complications of (prophylaxis and treatment); Hemorrhagic complications of factor VII deficiency (prophylaxis and treatment) [Proplex T]; Hemorrhage, anticoagulant-induced (treatment) [Factor IX complex concentrates].

Primary Actions or Pathogenetic Symptoms

CHEST: **embolism, pulmonary** (chest discomfort; convulsions; dizziness or lightheadedness when getting up from a lying or sitting position; shortness of breath or fast breathing); **infarction, myocardial** (anxiety; cold sweating; increased heart rate; nausea or vomiting; severe pain or pressure in the chest and/or the neck, back, or left arm; shortness of breath).

GENERALITIES: ***coagulation, intravascular, disseminated*** (cyanosis [bluish coloring], especially of the hands and feet; ecchymoses at injection sites [large, nonelevated blue or purplish patches in the skin]; excessive sweating; persistent bleeding or oozing from puncture sites or mucous membranes [bowel, mouth, nose, or urinary bladder]); **infarction, myocardial** (anxiety; cold sweating; increased heart rate; nausea or vomiting; severe pain or pressure in the chest and/or the neck, back, or left arm; shortness of breath); **thrombosis or thromboembolism** (pains in chest, groin, or legs [especially calves]; severe, sudden headache; sudden and unexplained shortness of breath, slurred speech, vision changes, and/or weakness or numbness in arm or legs; sudden loss of coordination); ***anaphylaxis or other allergic reaction*** (changes in facial skin color; fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; skin rash, hives, and/or itching) (may include anaphylactic shock with sudden, severe decrease in blood pressure and collapse); ***injection reaction*** (burning or stinging at injection site; changes in blood pressure or pulse rate; chills; drowsiness; fever; flushing [redness of face]; headache; nausea or vomiting; shortness of breath) (occurs with too rapid an injection rate).

Factor VIIa (Systemic)

Commercial name(s): *NovoSeven.*

Category: Antihemorrhagic.

Conventional indications: Hemophilia A, hemorrhagic complications of (treatment); Hemophilia B, hemorrhagic complications of (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: ***headache.***

FACE: ***edema*** (bloating or swelling of face).

STOMACH: ***vomiting.***

KIDNEYS: dysfunction, renal (high blood pressure; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sudden decrease in the amount of urine; swelling of face, fingers, feet, and/or lower legs; continuing thirst; unusual tiredness or weakness; weight gain).

RESPIRATION: pneumonia (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

CHEST: bradycardia (slow or irregular heartbeat [less than 50 beats per minute]); pneumonia (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

EXTREMITIES: arthrosis (pain or stiffness in muscles or joints); edema (bloating or swelling of hands, lower legs, and/or feet).

FEVER: fever.

SKIN: pruritus (itchy skin); purpura (pinpoint red or purple spots on skin); rash.

GENERALITIES: coagulation, intravascular, disseminated (cyanosis [bluish color], especially of the hands and feet; ecchymoses at injection sites [large, nonelevated blue or purplish patches on the skin]; excessive sweating; persistent bleeding or oozing from puncture sites or mucous membranes [bowel, mouth, nose, or urinary bladder]); hypertension (high blood pressure); anaphylaxis or other allergic reaction to factor VIIa, or to mouse, hamster, or bovine protein (changes in facial color; fast or irregular breathing; puffiness or swelling of eyelids or around the eyes; shortness of breath; tightness in chest; wheezing; skin rash; hives; itching); arthrosis (pain or stiffness in muscles or joints); bradycardia (slow or irregular heartbeat [less than 50 beats per minute]); dysfunction, renal (high blood pressure; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sudden decrease in the amount of urine; swelling of face, fingers, feet, and/or lower legs; continuing thirst; unusual tiredness or weakness; weight gain); hypotension (faintness; dizziness; lightheadedness when getting up from a lying or sitting position; chills; cold sweats; confusion; fast heartbeat; shakiness; slurred speech; blurred vision; unusual tiredness or weakness); injection site reaction (burning or stinging at injection site; changes in blood pressure or pulse rate; chills; drowsiness; fever; flushing [redness of face]; headache; nausea or vomiting; shortness of breath).

Secondary Actions or Rebound Effects: fibrinogen plasma decreased; hemarthrosis (joint pain and/or stiffness); hemorrhage (not otherwise specified) (bleeding problems); fibrinolysis, increased (bleeding problems); prothrombin, decreased (bleeding problems).

Famciclovir (Systemic)

Commercial name(s): *Famvir*.

Category: Antiviral (systemic).

Conventional indications: Herpes genitalis, recurrent episodes (suppression or treatment); Herpes simplex, HIV-associated (treatment); Herpes zoster (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

STOMACH: *nausea*; *vomiting*.

RECTUM: *diarrhea*.

GENERALITIES: *fatigue* (unusual tiredness or weakness).

Fat Emulsions (Systemic)

Category: Nutritional supplement (fatty acid).

Conventional indications: Fatty acid deficiency (prophylaxis and treatment) [Intravenous fat emulsions].

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

STOMACH: *nausea*; *vomiting*.

RECTUM: *diarrhea*.

RESPIRATION: *cyanosis* (bluish color of skin); *dyspnea* (difficulty in breathing).

CHEST: *pain*, *chest*.

BACK: *pain*.

CHILL: *chills*.

FEVER: *fever*.

SKIN: *flushing*; *urticaria* (hives).

GENERALITIES: *sepsis* (chills, fever, or sore throat); **thrombophlebitis** (redness, swelling, or pain at injection site); *flushing*; *allergic reactions*; *anemia* (unusual tiredness or weakness); *anemia* (unusual tiredness or weakness); *cyanosis* (bluish color of skin); *hypercoagulability*; *hyperlipemia* (fever; headache; unusual irritability) (more frequent with prolonged use); *jaundice* (yellow eyes or skin) (more frequent with prolonged use); *thrombocytopenia* (unusual bleeding or bruising) (more frequent with prolonged use).

DIAGNOSTIC TESTS: *anemia*; *hyperlipemia*; *thrombocytopenia*.

Felbamate (Systemic)

Commercial name(s): *Felbatol*.

Category: Anticonvulsant.

Conventional indications: Epilepsy (treatment); Epilepsy, Lennox-Gastaut syndrome (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation*; *aggression*; *anxiety*; *mood or mental changes*; *nervousness*; *psychosis* (severe mood or mental changes).

VERTIGO: *dizziness*; **gait abnormality** (walking in unusual manner).

HEAD: headache.

VISION: *abnormalities*; *blurred vision*; *diplopia* (double vision).

NOSE: *rhinitis* (runny nose).

MOUTH: **taste perversion** (change in sense of taste).

STOMACH: **anorexia** (loss of appetite); **dyspepsia** (indigestion); **nausea**; **pain, abdominal** (stomach pain); **vomiting**; distress, gastric, mild.

ABDOMEN: **pain, abdominal** (stomach pain); *liver failure, acute* (continuing headache; continuing stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin).

RECTUM: **constipation**; *diarrhea*.

RESPIRATION: *infection, upper respiratory tract* (coughing; ear congestion or pain; fever; head congestion; nasal congestion; runny nose; sneezing; sore throat).

CHEST: heart rate, resting, of 100 beats per minute.

EXTREMITIES: *ataxia* (clumsiness or unsteadiness).

SLEEP: **insomnia** (trouble in sleeping); *drowsiness*.

FEVER: fever.

SKIN: **purpura** (purple or red spots on skin); *rash*; *photosensitivity* (sensitivity of skin to sunlight).

GENERALITIES: *infection, upper respiratory tract* (coughing; ear congestion or pain; fever; head congestion; nasal congestion; runny nose; sneezing; sore throat); *tremor* (trembling or shaking); *weight loss*; *agranulocytosis* (chills; fever; sore throat; general feeling of tiredness or weakness); *anaphylactoid reaction* (nasal congestion; shortness of breath or troubled breathing; skin rash, hives or itching; swelling of face); *anemia, aplastic* (shortness of breath, troubled breathing, wheezing, or tightness in chest; sores, ulcers, or white spots on lips or in mouth; swollen or painful glands; unusual bleeding or bruising); *bone marrow depression* (chills; fever; sore throat; unusual bleeding or bruising); *death* (due to both aplastic anemia and acute liver failure); *leukopenia* (chills; fever; sore throat); *liver failure, acute* (continuing headache; continuing stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin); *lymphadenopathy* (swollen lymph nodes); *pancytopenia* (nosebleeds or other unusual bleeding or bruising); *platelet disorder, qualitative* (unusual bruising or bleeding; black or tarry stools); *Stevens-Johnson syndrome* (skin rash or itching; sores or white spots on lips or in mouth; sore throat; fever; chills; muscle cramps; pain; weakness; chest pain); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); heart rate, resting, of 100 beats per minute.

DIAGNOSTIC TESTS: *anemia, aplastic*; *bone marrow depression*; *leukopenia*; *pancytopenia*; *thrombocytopenia*.

Fenofibrate (Systemic)

Commercial name(s): *Antara*; *Lipidil Micro*; *Lipidil Supra*; *Lofibra*; *Tricor*; *Triglide*.

Category: Antihyperlipidemic.

Conventional indications: Hypercholesterolemia (treatment); Hypertriglyceridemia (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *irritation*.

NOSE: *rhinitis* (stuffy nose).

STOMACH: *belching; nausea; pain, abdominal* (stomach pain).

ABDOMEN: *flatulence* (gas); *pain, abdominal* (stomach pain); *cholecystitis* (abdominal pain, vague; indigestion, chronic; nausea); *cholelithiasis* (abdominal fullness, gaseous; abdominal pain, recurrent; fever; yellow eyes or skin); *cirrhosis; pancreatitis* (abdominal pain and distention; fever; nausea; vomiting).

RECTUM: *constipation; diarrhea*.

GENITALIA MALE: *libido, decreased*.

GENITALIA FEMALE: *libido, decreased*.

RESPIRATION: **disorder, respiratory** (chest congestion, difficulty in breathing).

CHEST: *alveolitis, allergic* (cough; shortness of breath or troubled breathing).

BACK: *pain*.

EXTREMITIES: *myalgia* (muscle pain); *myasthenia* (muscle weakness); *myopathy* (diffuse myalgias, muscle tenderness or weakness, marked elevations of creatine kinase (CK) in serum, malaise, fever); *myositis* (inflammation or swelling of skeletal muscle); *rhabdomyolysis* (fever; muscle cramps, pain, stiffness, or weakness; unusual tiredness).

SKIN: *photosensitivity* (increased sensitivity of the skin to sunlight); *pruritus* (generalized itching); *rash; urticaria* (hives); *eczema*.

GENERALITIES: *hypolipidemic effect; asthenia* (lack or loss of strength); *infections; influenza syndrome* (chills, fever, muscle aches and pains, or nausea and/or vomiting); *agranulocytosis* (chills; fever; sore throat); *cholesterol excretion into the bile, increased; hepatitis, hepatocellular, chronic active, and cholestatic; hepatotoxicity* (abdominal fullness; dark urine; fever; general ill feeling; generalized itching; loss of appetite; unusual fatigue; yellow eyes or skin); *hypersensitivity reactions, acute* (including severe skin rashes requiring patient hospitalization and treatment with steroids); *myalgia* (muscle pain); *myasthenia* (muscle weakness); *myositis* (inflammation or swelling of skeletal muscle); *rhabdomyolysis* (fever; muscle cramps, pain, stiffness, or weakness; unusual tiredness); *thrombocytopenia* (unusual bleeding or bruising).

DIAGNOSTIC TESTS: *agranulocytosis; cholelithiasis; thrombocytopenia*.

Fenoldopam (Systemic)

Commercial name(s): *Corlopam*.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; nervousness*.

VERTIGO: *dizziness*.

HEAD: *headache*.

NOSE: *congestion*.

FACE: **flushing** (sudden reddening of the face).

EXTERNAL THROAT: **flushing** (sudden reddening of the neck).

STOMACH: *nausea; vomiting.*

ABDOMEN: *pain, abdominal; sensation of fullness.*

RECTUM: *constipation; diarrhea.*

CHEST: *tachycardia* (fast heartbeat) (could lead to ischemic cardiac events or worsened heart failure); *flushing* (sudden reddening of the upper chest); *ST-T wave abnormalities, primarily T-wave inversion.*

BACK: *pain, back.*

SLEEP: *insomnia.*

PERSPIRATION: *sweating.*

GENERALITIES: *hypotension* (lightheadedness or fainting); *flushing; tachycardia* (fast heartbeat) (could lead to ischemic cardiac events or worsened heart failure); *lesions, arterial* (medial necrosis and hemorrhage, in renal and splanchnic arteries of rats) (continuous intravenous infusion); *polyarteritis nodosa* (in rats; oral daily doses); *ST-T wave abnormalities, primarily T-wave inversion.*

DIAGNOSTIC TESTS: *ST-T wave abnormalities, primarily T-wave inversion.*

Fentanyl (Systemic)

Commercial name(s): *Actiq.*

Category: Analgesic.

Conventional indications: Pain, chronic cancer (treatment) [Transmucosal fentanyl].

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; confusion; false sense of well-being; hallucinations* (seeing, hearing, or feeling things that are not there); *nervousness; thinking abnormal; restlessness.*

VERTIGO: *dizziness.*

EYE: miosis (pinpoint pupils of the eyes).

MOUTH: *dryness; erosion, gum line* (trouble with gums).

TEETH: *caries, dental* (tooth pain); *decay, dental; loss, tooth* (trouble with teeth).

STOMACH: *nausea; vomiting.*

RECTUM: *constipation.*

BLADDER: *retention, urinary* (decrease in urine volume; decrease in frequency of urination).

RESPIRATION: *dyspnea* (shortness of breath); slow or troubled breathing.

EXTREMITIES: *coordination, problems with.*

SLEEP: *drowsiness.*

SKIN: cold, clammy skin.

GENERALITIES: *analgesic* (pain absence); **depression, central nervous system (CNS)** (dizziness, lightheadedness, feeling faint, unusual tiredness, or weakness); *weakness*; convulsions; hypotension (dizziness, lightheadedness, or feeling faint).

Secondary Actions or Rebound Effects: *withdrawal syndrome* (reappearance of disease symptoms).

Fentanyl (Transdermal-Systemic)

Commercial name(s): *Duragesic*.

Category: Analgesic.

Conventional indications: Pain, chronic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: anxiety; confusion; false sense of well-being; nervousness; hallucinations (seeing, hearing, or feeling things that are not there); agitation (feeling anxious and restless); memory loss; paranoia (delusions of persecution, mistrust, suspiciousness, and/or combativeness); speaking, difficulty in; thinking, abnormal; delirium, toxic; depersonalization; inability to speak; stupor; restlessness; unconsciousness.

VERTIGO: dizziness; fainting; gait; hypotension, postural.

HEAD: headache.

EYE: pinpoint pupils.

VISION: amblyopia (any change in vision); blurred vision.

FACE: edema (bloating or swelling of face).

MOUTH: speaking, difficulty in; inability to speak.

STOMACH: appetite, loss of; indigestion; nausea; vomiting; bloated feeling; gas.

ABDOMEN: pain, abdominal; distention, abdominal (swelling of abdominal area).

RECTUM: constipation; diarrhea (rebound effect?).

BLADDER: retention, urinary (decreased frequency of urination; decrease in urine volume); cessation of urination; pain, bladder; urge to urinate, frequent.

GENITALIA MALE: anorgasmia (not able to have an orgasm); ejaculatory difficulty; libido, decreased (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection).

GENITALIA FEMALE: anorgasmia (not able to have an orgasm).

RESPIRATION: apnea; difficult breathing; hypoventilation (respiratory rate < 8 breaths per minute, pCO₂ greater than 55 mmHg); asthma (noisy breathing; shortness of breath; troubled breathing; tightness in chest; wheezing); problems, respiratory; slow or troubled breathing.

EXPECTORATION: spitting blood.

CHEST: heartbeat, irregular; pain, chest; asthma (noisy breathing; shortness of breath; troubled breathing; tightness in chest; wheezing); bradycardia (slow heartbeat); tachycardia (fast, pounding, or irregular heartbeat or pulse); heartbeat, slow.

EXTREMITIES: coordination, problems with; edema (bloating or swelling of hands, lower legs, and/or feet).

SLEEP: drowsiness.

DREAMS: unusual dreams.

PERSPIRATION: sweating.

SKIN: itching of skin; burning; crawling, feeling of; skin reaction, localized (redness, swelling, and/or bumps on the skin, with or without itching, at place of application); tingling; blisters, fluid-filled; dermatitis, contact, allergic; dermatitis, exfoliative (fever

with or without chills; red, thickened, or scaly skin; swollen and/or painful glands; unexplained bruising); *papules, nonpruritic macular, diffuse*; cold, clammy skin.

GENERALITIES: *analgesic* (pain absence); **depression, CNS; hypoventilation** (respiratory rate < 8 breaths per minute, pCO₂ greater than 55mm Hg); **weakness; heartbeat, irregular; bradycardia** (slow heartbeat); *dependence, physical; edema* (decreased urination; rapid weight gain; bloating or swelling of face, hands, lower legs, and/or feet); *hypotension, postural; stupor; tachycardia* (fast, pounding, or irregular heartbeat or pulse); *weight loss*; blood pressure, low; convulsions; heartbeat, slow.

DIAGNOSTIC TESTS: **hypoventilation** (respiratory rate < 8 breaths per minute, pCO₂ greater than 55mm Hg).

Secondary Actions or Rebound Effects: *withdrawal syndrome* (reappearance of disease symptoms).

Fentanyl Derivatives (Systemic)

Commercial name(s): *Alfenta; Sublimaze; Sufenta.*

Category: Anesthesia adjunct (opioid analgesic) [Alfentanil; Fentanyl; Sufentanil]; Analgesic [Fentanyl; Sufentanil].

Conventional indications: Anesthesia, general or local adjunct; Pain, postoperative (treatment) [Fentanyl and sufentanil]; Pain, obstetrical (treatment) [Sufentanil]; Sedation and analgesia [Fentanyl].

Primary Actions or Pathogenetic Symptoms

MIND: *confusion, postoperative* (rare with Alfentanil); *delirium* (unusual excitement); *depression, mental, postoperative.*

VERTIGO: dizziness, severe.

HEAD: *immobility of the head* [Alfentanil].

EYE: *movements, abnormal* (i.e., disconjugate gaze) [Alfentanil]; pinpoint pupils.

VISION: *blurred or double vision or other changes in vision.*

FACE: *clenching of the jaw* [Alfentanil].

EXTERNAL THROAT: *contraction of neck muscles* [Alfentanil].

STOMACH: **nausea; vomiting.**

ABDOMEN: *spasm, biliary* (abdominal pain); *rigidity of abdominal muscles* [Alfentanil].

RECTUM: *constipation.*

BLADDER: *retention, urinary* (difficult urination).

KIDNEYS: *spasm, ureteral* (decreased or difficult urination).

LARYNX AND TRACHEA: *laryngospasm* (shortness of breath, trouble in breathing, tightness in chest, or wheezing).

RESPIRATION: **depression, respiratory, intraoperative or postoperative** (may progress to apnea); *arrest, respiratory; bronchospasm, allergic* (shortness of breath, trouble in breathing, tightness in chest, or wheezing); *laryngospasm* (shortness of breath, trouble in breathing, tightness in chest, or wheezing); *rigidity in muscles of respiration.*

CHEST: **bradycardia** (dizziness, lightheadedness, or feeling faint); *arrhythmia, cardiac* (dizziness, lightheadedness, or feeling faint); *asystole*; *bronchospasm, allergic* (shortness of breath, trouble in breathing, tightness in chest, or wheezing); *rigidity, chest wall* (during emergence from fentanyl- or sufentanil-assisted anesthesia); *rigidity in muscles of respiration*; *tachycardia*.

EXTREMITIES: *extension of the toes, ankles, knees, and hips* [Alfentanil]; *flexion of the fingers, wrists, and elbows* [Alfentanil]; *movements, skeletal muscle* (not related to onset of rigidity) (during surgery).

SLEEP: **drowsiness, postoperative** (less frequent with Alfentanil).

CHILL: *chills*.

SKIN: *dermatitis, allergic* (skin rash, hives, and/or itching); cold, clammy skin.

GENERALITIES: *analgesic* (pain absence); **bradycardia** (dizziness, lightheadedness, or feeling faint); **hypotension** (dizziness, lightheadedness, or feeling faint) (most likely to occur shortly after administration; blood pressure may return to preadministration values with surgical stimulation); *arrhythmia, cardiac* (dizziness, lightheadedness, or feeling faint); *depression, circulatory* (dizziness) (may lead to cardiac arrest); *hypertension* (during surgery) (rebound effect?); *movements, skeletal muscle* (not related to onset of rigidity) (during surgery); *seizures* (convulsions) [Fentanyl and Sufentanil]; *tachycardia* (during surgery); weakness, severe.

Secondary Actions or Rebound Effects: *withdrawal syndrome* (tachycardia, hypertension, hyperpnea, hyperalgesia, nausea, and vomiting); *CNS excitation, paradoxical*; nervousness; restlessness, severe.

Ferrous Citrate Fe 59 (Systemic)

Category: Diagnostic aid (iron metabolism; iron absorption).

Conventional indications: Anemia (diagnosis); Iron metabolism studies; Iron absorption studies.

Primary Actions or Pathogenetic Symptoms

At present, there are no known side/adverse effects associated with the use of ferrous citrate Fe 59.

Ferumoxides (Systemic)

Commercial name(s): *Feridex I.V.*

Category: Diagnostic aid, superparamagnetic (liver disorders).

Conventional indications: Liver imaging, magnetic resonance.

Primary Actions or Pathogenetic Symptoms

STOMACH: *nausea*.

ABDOMEN: *pain, groin, severe*.

BACK: *pain, severe*.

EXTREMITIES: pain, leg, severe.

SKIN: discoloration, brown (with extravasation).

GENERALITIES: anaphylactic or allergic reaction (itching, watery eyes; skin rash or hives; swelling of face; thickening of tongue; wheezing, tightness in chest, or troubled breathing); hypotension (unusual tiredness or weakness, severe); vasodilation (unusual warmth and flushing of skin).

Fexofenadine (Systemic)

Commercial name(s): *Allegra*.

Category: Antihistaminic (H₁-receptor).

Conventional indications: Rhinitis, seasonal allergic (treatment); Urticaria (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: nervousness.

VERTIGO: dizziness.

HEAD: headache.

EAR: otitis media (earache; ringing or buzzing in ears) (in pediatric patients).

NOSE: nasopharyngitis (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache); sinusitis (headache; pain or tenderness around eyes or cheekbones; runny or stuffy nose).

MOUTH: dryness.

THROAT: nasopharyngitis (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache).

STOMACH: dyspepsia (stomach upset); nausea.

GENITALIA FEMALE: dysmenorrhea (painful menstrual bleeding).

RESPIRATION: infection, upper respiratory tract (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

COUGH: coughing (in pediatric patients).

BACK: pain.

EXTREMITIES: myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); pain in extremity (pain in arms or legs).

SLEEP: drowsiness; disorders, sleep (sleeplessness; terrifying dreams; trouble sleeping).

FEVER: fever (in pediatric patients).

SKIN: rash, urticarial and pruritic (rebound effect?).

GENERALITIES: anaphylaxis and hypersensitivity reactions (chest tightness; feeling of warmth redness of the face, neck, arms and occasionally, upper chest; large, hive-like swelling on face, eyelids, lips, tongue, throat, hands, legs, feet, sex organs; shortness of breath, difficult or labored breathing) (rebound effects?); fatigue (unusual feeling of tiredness); infection, upper respiratory tract (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); infections, viral such as cold, flu; myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or

stiffness; difficulty in moving); sinusitis (headache; pain or tenderness around eyes or cheekbones; runny or stuffy nose).

Fexofenadine and Pseudoephedrine (Systemic)

Commercial name(s): *Allegra-D; Allegra-D 24 Hour*.

Category: Antihistaminic (H₁-receptor) - decongestant.

Conventional indications: Rhinitis, seasonal allergic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: agitation; anxiety; nervousness.

VERTIGO: dizziness.

HEAD: headache.

EYE: angioedema (large, hive-like swelling on eyelids).

FACE: angioedema (large, hive-like swelling on face, lips); flushing (feeling of warmth; redness of the face).

MOUTH: dryness.

THROAT: sore throat; angioedema (large, hive-like swelling on throat).

EXTERNAL THROAT: flushing (feeling of warmth; redness of the neck).

STOMACH: nausea; dyspepsia (heartburn); pain.

ABDOMEN: pain, abdominal.

GENITALIA MALE: angioedema (large, hive-like swelling on sex organs).

GENITALIA FEMALE: angioedema (large, hive-like swelling on sex organs).

RESPIRATION: infection, upper respiratory (cough; sore throat); dyspnea (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: palpitations (irregular heartbeat); flushing (feeling of warmth; redness of the upper chest); tightness, chest.

BACK: pain.

EXTREMITIES: angioedema (large, hive-like swelling on hands, legs, feet); flushing (feeling of warmth; redness of the arms).

SLEEP: insomnia (trouble in sleeping); sleep disorders (trouble in sleeping).

DREAMS: paroniria (terrifying dreams causing sleep disturbances).

SKIN: flushing (feeling of warmth).

GENERALITIES: palpitations (irregular heartbeat); infection, upper respiratory (cough; sore throat); anaphylaxis (cough; difficulty swallowing; dizziness; fast heartbeat; hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); flushing; hypersensitivity reaction (difficulty in breathing and/or swallowing; fever; hives; nausea; reddening of the skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness) (rebound effects?).

Secondary Actions or Rebound Effects: pruritus (itching skin); rash; urticaria (hives or welts; itching; redness of skin; skin rash).

Finasteride (Systemic)

Commercial name(s): *Propecia; Proscar.*

Category: Benign prostatic hyperplasia therapy agent; Hair growth stimulant, alopecia androgenetica (systemic).

Conventional indications: Benign prostatic hyperplasia (treatment); Alopecia androgenetica (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *hair growth stimulant* (hirsutism); *headache.*

ABDOMEN: *pain, abdominal.*

RECTUM: *diarrhea.*

GENITALIA MALE: *ejaculate volume, decreased; impotence; libido, decreased; pain, testicular.*

GENITALIA FEMALE: *libido, decreased.*

CHEST: *gynecomastia* (breast enlargement and tenderness) (can lead to primary intraductal breast carcinoma).

BACK: *pain.*

SKIN: *hair growth stimulant* (hirsutism).

GENERALITIES: *hair growth stimulant* (hirsutism); *hypersensitivity reaction* (skin rash; swelling of lips).

Flavocoxid (Systemic)

Commercial name(s): *Limbrel.*

Category: Antirheumatic.

Conventional indications: Osteoarthritis (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: *ulcer, gastric* (bleeding, ulceration and perforation).

EXTREMITIES: **fluid accumulation in the knee; varicose veins, increased** (dull ache or feeling of pressure or heaviness in legs; itching skin near damaged veins; swollen feet and ankles).

SKIN: **psoriasis** (red, scaling, or crusted skin).

GENERALITIES: **hypertension** (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); **varicose veins, increased** (dull ache or feeling of pressure or heaviness in legs; itching skin near damaged veins; swollen feet and ankles).

Flavoxate (Systemic)

Commercial name(s): *Urispas.*

Category: Antispasmodic (urinary tract).

Conventional indications: Urologic disorders, symptoms of (treatment); Irritative voiding, symptoms of (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: concentrating, difficulty; nervousness; confusion (especially in the elderly); clumsiness; excitement, unusual; hallucinations; irritability; restlessness.

VERTIGO: dizziness.

HEAD: headache.

EYE: mydriatic effect (increased sensitivity of eyes to light); pressure, intraocular, increased (eye pain).

VISION: accommodation, eye, difficulty in (blurred vision).

FACE: flushing; redness.

MOUTH: dryness.

THROAT: dryness.

STOMACH: nausea; pain; vomiting.

RECTUM: constipation.

BLADDER: urination, difficult.

RESPIRATION: shortness of breath; troubled breathing.

CHEST: heartbeat, fast.

EXTREMITIES: clumsiness; unsteadiness.

SLEEP: drowsiness.

FEVER: fever.

PERSPIRATION: increased sweating.

SKIN: urticaria and other dermatosis (hives).

GENERALITIES: heartbeat, fast; hypersensitivity (skin rash or hives); leukopenia (sore throat and fever); anticholinergic effects (clumsiness or unsteadiness; severe dizziness; severe drowsiness; fever; flushing or redness of face; hallucinations; shortness of breath or troubled breathing; unusual excitement; nervousness; restlessness; or irritability).

DIAGNOSTIC TESTS: leukopenia.

Flecainide (Systemic)

Commercial name(s): *Tambacor*.

Category: Antiarrhythmic.

Conventional indications: Arrhythmias, supraventricular (prophylaxis); Arrhythmias, ventricular (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

MIND: anxiety; depression, mental.

VERTIGO: dizziness; lightheadedness.

HEAD: headache.

VISION: blurred vision; seeing spots.

STOMACH: appetite, loss of; nausea; pain; vomiting.

ABDOMEN: *impairment, hepatic function* (yellow eyes or skin).

RECTUM: *constipation.*

CHEST: *congestive heart failure* (shortness of breath; swelling of feet or lower legs); *pain, chest; arrest, cardiac, nonfatal; arrest, sinus; block, atrioventricular (AV), second or third degree; bradycardia, sinus; sinus pause.*

EXTREMITIES: *trembling or shaking.*

SKIN: *skin rash.*

GENERALITIES: *tiredness or weakness, unusual; block, atrioventricular (AV), second or third degree; bradycardia, sinus; death; sinus pause.*

DIAGNOSTIC TESTS: *block, atrioventricular (AV), second or third degree.*

Secondary Actions or Rebound Effects: *arrhythmias, supraventricular, new* (irregular heartbeat); *contractions, ventricular, premature, increased frequency of; tachyarrhythmias, ventricular, new or worsened.*

Floxuridine (Systemic)

Commercial name(s): *FUDR.*

Category: Antineoplastic.

Conventional indications: Carcinoma, colorectal (treatment); Carcinoma, hepatic (treatment); Carcinoma, ovarian, epithelial (treatment); Carcinoma, renal (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *walking, trouble in.*

HEAD: *hair, thinning of.*

MOUTH: *stomatitis, aphthous* (sores in mouth and on lips); *glossitis* (swelling or soreness of tongue).

THROAT: *esophagopharyngitis* (heartburn).

STOMACH: *appetite, loss of; gastritis; nausea; ulceration, gastrointestinal* (black tarry stools); *vomiting.*

ABDOMEN: *enteritis* (diarrhea; stomach pain or cramps); *ulceration, gastrointestinal* (black tarry stools); *cholecystitis, acalculus* (yellow eyes or skin); *hepatitis, chemical* (elevated hepatic enzymes, nausea and vomiting) (hepatic artery infusion); *hepatotoxicity; sclerosis, biliary, intra- and extrahepatic.*

EXTREMITIES: *redness of hands or feet* (with prolonged infusion therapy); *scaling of hands or feet* (with prolonged infusion therapy); *walking, trouble in.*

SKIN: *hair, thinning of; itching; skin rash.*

GENERALITIES: *hair, thinning of; anemia* (unusual tiredness or weakness); *hepatic enzymes, elevated; infection* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *leukopenia* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin).

DIAGNOSTIC TESTS: *anemia; hepatic enzymes, elevated; leukopenia; thrombocytopenia.*

Flucytosine (Systemic)

Commercial name(s): *Ancobon; Ancotil.*

Category: Antifungal (systemic).

Conventional indications: Endocarditis, fungal (treatment); Meningitis, fungal (treatment); Pneumonia, fungal (treatment); Septicemia, fungal (treatment); Urinary tract infections, fungal (treatment); Candidiasis (treatment); Chromomycosis (treatment); Cryptococcosis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; hallucinations.*

VERTIGO: *dizziness; lightheadedness.*

HEAD: *headache.*

STOMACH: appetite, loss of; nausea; vomiting.

ABDOMEN: pain, abdominal.

RECTUM: diarrhea.

SLEEP: *drowsiness.*

SKIN: hypersensitivity (skin rash, redness, or itching); *photosensitivity* (increased sensitivity of skin to sunlight).

GENERALITIES: anemia (unusual tiredness or weakness); hepatitis (yellow eyes or skin); jaundice (yellow eyes or skin); leukopenia (sore throat and fever); thrombocytopenia (unusual bleeding or bruising).

DIAGNOSTIC TESTS: anemia; leukopenia; thrombocytopenia.

Fludarabine (Systemic)

Commercial name(s): *Fludara.*

Category: Antineoplastic.

Conventional indications: Leukemia, chronic lymphocytic (treatment); Lymphomas, non-Hodgkin's (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation; confusion; depression* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); *coma; mental status, continued deterioration of.*

HEAD: *cerebrovascular accident* (blurred vision; headache; sudden and severe inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe); *hair, loss of; headache; seborrhea* (dandruff; oily skin); *blindness, cortical; leukoencephalopathy involving the subcortical white matter, optic nerves, and optic tract.*

VISION: *blurred vision; blindness, cortical or not.*

HEARING: *loss of hearing.*

NOSE: *epistaxis* (bloody nose); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

FACE: **edema** (swelling of face); *neuropathy, peripheral* (numbness or tingling in face).

MOUTH: **stomatitis** (swelling or inflammation of the mouth); *mucositis* (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth).

THROAT: **pharyngitis** (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); *dysphagia* (difficulty swallowing); *esophagitis* (difficulty in swallowing; pain or burning in throat; chest pain; heartburn vomiting; sores, ulcers, or white spots on lips or tongue or inside the mouth).

STOMACH: **anorexia** (loss of appetite; weight loss); **bleed, gastrointestinal** (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe stomach pain; constipation); **nausea; vomiting.**

ABDOMEN: **bleed, gastrointestinal** (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe stomach pain; constipation); *cholelithiasis* (abdominal fullness; gaseous abdominal pain; recurrent fever; yellow eyes or skin); *failure, liver* (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin).

RECTUM: **bleed, gastrointestinal** (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe stomach pain; constipation); **diarrhea; constipation** (rebound effect?); *mucositis* (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth).

BLADDER: **infection, urinary** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *dysuria* (difficult or painful urination; burning while urinating); *hesitancy, urinary* (difficult urination); *cystitis, hemorrhagic* (blood in urine; frequent urination; lower abdominal cramping; painful urination); *incontinence.*

KIDNEYS: **infection, urinary** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *failure, renal* (blood in urine, lower back or side pain).

URINE: *hematuria* (blood in urine); *proteinuria* (cloudy urine); *crystalluria, urate.*

RESPIRATION: **dyspnea** (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); **pneumonia** (cough; fever; shortness of breath); *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *hypoxia* (confusion; dizziness; fast heartbeat; shortness of breath; weakness).

COUGH: **cough; hemoptysis** (coughing or spitting up blood).

CHEST: **angina** (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea); **hemoptysis** (coughing or spitting up blood); **pneumonia** (cough; fever; shortness of breath); **pneumonitis, allergic** (chest pain; chills; cough; fever; general feeling of discomfort or illness; shortness of breath; thickening of bronchial secretions; troubled breathing); *arrhythmia* (dizziness; fainting; fast, slow, or irregular heartbeat); *congestive heart failure* (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing;

irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing); tachycardia, supraventricular (fainting; fast, pounding, or irregular heartbeat, or pulse; palpitations); bronchitis (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); toxicity, pulmonary, severe (cough or shortness of breath).

EXTREMITIES: **edema** (swelling of fingers, feet, or legs); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); arthralgia (difficulty in moving; muscle pain or stiffness; pain in joints); neuropathy, peripheral (numbness or tingling in fingers, toes); osteoporosis (pain in back, ribs, arms, or legs; decrease in height); thrombosis, deep vein (pain, redness, or swelling in arm or leg).

SLEEP: sleep disorder (difficulty in sleeping).

CHILL: **chills.**

FEVER: **fever.**

PERSPIRATION: **diaphoresis** (increased sweating).

SKIN: **skin rash;** hair, loss of; pruritus (itching skin); seborrhea (dandruff; oily skin).

GENERALITIES: **anemia** (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); **fatigue;** **hyperglycemia** (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **malaise** (general feeling of discomfort or illness; unusual tiredness or weakness); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **neutropenia** (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); **pain;** **paresthesia** (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools ; blood in urine or stools; pinpoint red spots on skin); **weakness;** aneurysm; arrhythmia (dizziness; fainting; fast, slow, or irregular heartbeat); arthralgia (difficulty in moving; muscle pain or stiffness; pain in joints); dehydration (confusion; decreased urination; dizziness; dry mouth; fainting; increase in heart rate; lightheadedness; rapid breathing; sunken eye; thirst; unusual tiredness or weakness; wrinkled skin); hair, loss of; hemorrhage (bleeding gums; coughing up blood; difficulty in breathing or swallowing; dizziness; headache; increased menstrual flow or vaginal bleeding; nosebleeds; paralysis; prolonged bleeding from cuts; red or dark brown urine; red or black, tarry stools; shortness of breath); mucositis (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth); osteoporosis (pain in back, ribs, arms, or legs; decrease in height); phlebitis (bluish color; changes in skin color; pain; tenderness; swelling of foot or leg); seborrhea (dandruff; oily skin); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); tachycardia, supraventricular (fainting; fast, pounding, or irregular heartbeat, or pulse; palpitations); thrombosis, deep vein (pain, redness, or swelling in arm or leg); acidosis, metabolic; anaphylaxis (cough; difficulty swallowing; dizziness; fast heartbeat;

hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *anemia, hemolytic* (back, leg, or stomach pain; bleeding gums; chills; dark urine; difficulty breathing; fatigue; fever; general body swelling; headache; loss of appetite; nausea or vomiting; nosebleeds; pale skin; sore throat; yellowing of the eyes or skin; unusual tiredness or weakness); *bone marrow depression* (dose-related); *bone marrow fibrosis*; *coma*; *death*; *demyelination, CNS, progressive*; *failure, liver* (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin); *hyperuricemia*; *hypoxia* (confusion; dizziness; fast heartbeat; shortness of breath; weakness); *myelosuppression, cumulative and severe*; *neurologic effects, delayed, possibly fatal* (blindness; coma); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *seizure*; *tumor lysis syndrome* (in chronic lymphocytic leukemia patients with large tumor burdens); toxicity, central nervous system, irreversible (delayed blindness, coma and death).

DIAGNOSTIC TESTS: **anemia**; **hyperglycemia**; **leukopenia**; **neutropenia**; **thrombocytopenia**; cholelithiasis; hematuria; osteoporosis; proteinuria; tachycardia; supraventricular; acidosis, metabolic; anemia, hemolytic; bone marrow depression; crystalluria, urate; hyperkalemia; hyperphosphatemia; hyperuricemia; hypocalcemia; hypoxia; myelosuppression, cumulative and severe; pancytopenia.

Fludrocortisone (Systemic)

Commercial name(s): *Florinef*.

Category: Corticosteroid (mineralocorticoid); Antihypotensive (idiopathic orthostatic); Diagnostic aid (renal tubular acidosis).

Conventional indications: Adrenocortical insufficiency, chronic primary (treatment); Adrenocortical insufficiency, chronic secondary (treatment); Adrenogenital syndrome, congenital (treatment); Hypotension, idiopathic orthostatic (treatment); Acidosis, in renal tubular disorders (diagnosis); Acidosis, in renal tubular disorders (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: disturbances, mental, severe (anxiety, confusion, agitation or combativeness, depression, hallucinations, expressed fear of impending death).

VERTIGO: dizziness; syncopal episodes (fainting or lightheadedness when getting up from a lying or sitting position; unusually fast heartbeat palpitations).

HEAD: headache, severe or continuing; hirsutism (unusual increase in hair growth); intracranial pressure with papilledema, increased (usually after treatment).

EYE: cataracts, subcapsular, posterior; glaucoma (blindness; blurred vision; decreased vision; eye pain; headache; nausea or vomiting; tearing of eyes); exophthalmos (eyeballs bulge out of eye sockets); pressure, intraocular, increased.

FACE: cushingoid state, development of (increased fat deposits on face); eruptions, acneiform (acne, pimples); erythema (redness of face); striae (reddish purple lines on face).

THROAT: esophagitis, ulcerative (chest pain; heartburn).

EXTERNAL THROAT: cushingoid state, development of (increased fat deposits on neck); fractures, vertebral compression (fractures in the neck or back).

STOMACH: ulcer, peptic, with possible perforation and hemorrhage (bloody or black, tarry stools; abdominal or stomach pain or burning).

ABDOMEN: cushingoid state, development of (increased fat deposits on trunk); distention, abdominal (swelling of abdominal or stomach area; full or bloated feeling or pressure in the stomach); striae (reddish purple lines on trunk); pancreatitis (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); ulcer, peptic, with possible perforation and hemorrhage (bloody or black, tarry stools; abdominal or stomach pain or burning).

URINE: glycosuria.

GENITALIA MALE: striae (reddish purple lines on groin).

GENITALIA FEMALE: menstrual irregularities (menstrual changes); striae (reddish purple lines on groin).

CHEST: congestive heart failure (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing); cushingoid state, development of (increased fat deposits on trunk); enlargement, cardiac; striae (reddish purple lines on trunk).

BACK: cushingoid state, development of (increased fat deposits on trunk); fractures, vertebral compression (fractures in the neck or back); striae (reddish purple lines on trunk).

EXTREMITIES: edema, peripheral (rapid weight gain; swelling of feet or lower legs); fracture of long bones, pathologic; fractures, spontaneous (fractures in arms or legs without any injury); muscle mass, loss of; myopathy, steroid; necrosis, aseptic, of femoral and humeral heads (decreased range of motion; joint pain; walking with a limp); osteoporosis (back or rib pain; decrease in height); striae (reddish purple lines on arms, legs); weakness, muscle.

NAILS: hyperpigmentation (change in color of nails).

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep).

PERSPIRATION: sweating, increased.

SKIN: eruptions, acneiform (acne, pimples); hirsutism (unusual increase in hair growth); hives; hyperpigmentation (change in color of skin); petechiae; purpura (small red or purple spots on skin); rash, allergic; rash, maculopapular (redness or discoloration of skin); reactions to skin tests suppressed; thin, fragile skin; urticaria (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: hypertension (blurred vision; dizziness, severe or continuing; nervousness; headache; pounding in the ears; slow or fast heartbeat); anaphylaxis, generalized (cough; difficulty swallowing; hives; redness and itching of skin; redness of conjunctivae; shortness of breath; swelling of nasal membranes, face, and eyelids); angiitis, necrotizing (chills; coughing; coughing up blood; headache; loss of appetite; pain in joints or muscles; shortness of breath; skin rash; unusual tiredness; unusual weight loss); bruising; carbohydrate tolerance, decreased; convulsions; cushingoid state, development of (increased fat deposits on face, neck, and trunk); diabetes mellitus manifestations, latent

(blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; loss of consciousness; nausea; stomachache; sweating; troubled breathing; unexplained weight loss; vomiting); ecchymoses (bruising; large, flat, blue or purplish patches in the skin); edema, peripheral (rapid weight gain; swelling of feet or lower legs); fat atrophy, subcutaneous; fracture of long bones, pathologic; fractures, spontaneous (fractures in arms or legs without any injury); growth suppression (in children); intracranial pressure with papilledema, increased (usually after treatment); healing, wound, impaired (problems with wound healing); hirsutism (unusual increase in hair growth); hyperglycemia; hyperglycemia or diabetes (oral hypoglycemic agents, increased requirements); hypokalemic syndrome (irregular heartbeat; loss of appetite; muscle cramps or pain; nausea; severe weakness in arms, legs, or trunk; vomiting); infections, aggravating or masking of; insulin requirements, increased (patients taking insulin for diabetes may need to increase the amount they take); muscle mass, loss of; myopathy, steroid; necrosis, aseptic, of femoral and humeral heads (decreased range of motion; joint pain; walking with a limp); nitrogen balance, negative (due to protein catabolism); osteoporosis (back or rib pain; decrease in height); pancreatitis (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); syncopal episodes (fainting or lightheadedness when getting up from a lying or sitting position; unusually fast heartbeat palpitations); thrombophlebitis (changes in skin color; pain; tenderness; swelling of foot or leg); unresponsiveness, adrenocortical and pituitary, secondary (particularly in times of stress); weakness, muscle; retention of sodium and water (mineralocorticoid activity)

DIAGNOSTIC TESTS: fractures, spontaneous; glycosuria; hyperglycemia; hypokalemia; intracranial pressure with papilledema; nitrogen balance, negative; osteoporosis.

Flumazenil (Systemic)

Commercial name(s): *Anexate; Romazicon.*

Category: Benzodiazepine antagonist.

Conventional indications: Sedation, benzodiazepine-induced, reversal; Toxicity, benzodiazepine (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: emotional lability (crying; depersonalization; dysphoria; euphoria; mental depression; paranoia); hallucinations.

VERTIGO: dizziness, possibly with ataxia and/or vertigo.

HEAD: headache.

VISION: blurred vision or other vision disturbance.

HEARING: hearing disturbances.

STOMACH: nausea; vomiting.

CHEST: *arrhythmias* (atrial, nodal, and ventricular extrasystoles, bradycardia, and tachycardia); *pain, chest*.

EXTREMITIES: ataxia.

SLEEP: drowsiness, residual or re-emergent.

SKIN: *flushing; hives; hot flashes; itching; skin rash.*

GENERALITIES: *pain at injection site; fatigue, possibly with asthenia and malaise; flushing; hypertension; resedation, severe; seizures without other signs; thrombophlebitis at injection site; arrhythmias* (atrial, nodal, and ventricular extrasystoles, bradycardia, and tachycardia).

DIAGNOSTIC TESTS: *arrhythmias* (atrial, nodal, and ventricular extrasystoles, bradycardia, and tachycardia).

Secondary Actions or Rebound Effects: *agitation* (anxiety; dry mouth; dyspnea; hyperventilation; insomnia; nervousness; palpitations; tremor); *withdrawal syndrome* (reappearance of disease symptoms).

Fluoroquinolones (Systemic)

Commercial name(s): *Avelox; Avelox I.V.; Cipro; Cipro I.V.; Cipro XL; Cipro XR; Floxin; Floxin I.V.; Levaquin; Maxaquin; Noroxin; Penetrex; Tequin; Zagam.*

Category: Antibacterial (systemic).

Conventional indications: Anthrax, inhalational (treatment) [Ciprofloxacin and levofloxacin]; Bone and joint infections (treatment) [Ciprofloxacin]; Bronchitis, bacterial exacerbations (treatment) [Ciprofloxacin, gatifloxacin, moxifloxacin, levofloxacin, lomefloxacin, ofloxacin, and sparflaxacin]; Cervicitis, nongonococcal (treatment) or Urethritis, nongonococcal (treatment) [Ofloxacin]; Diarrhea, infectious (treatment) [Ciprofloxacin, Norfloxacin]; Gonorrhea, endocervical and urethral (treatment) [Ciprofloxacin, enoxacin, gatifloxacin, norfloxacin, and ofloxacin]; Intra-abdominal infections (treatment) [Ciprofloxacin, in combination with metronidazole]; Lower respiratory tract infections (treatment) [Ciprofloxacin and levofloxacin]; Neutropenia, febrile, empiric therapy (treatment) [Parenteral ciprofloxacin]; Pelvic inflammatory disease (treatment) [Ofloxacin]; Pneumonia, community-acquired (treatment) [Gatifloxacin, moxifloxacin levofloxacin, ofloxacin, and sparflaxacin]; Pneumonia, nosocomial (treatment) [Parenteral ciprofloxacin, Levofloxacin]; Prostatitis, bacterial (treatment) [Ciprofloxacin, levofloxacin, norfloxacin, and ofloxacin]; Pyelonephritis (treatment) [Gatifloxacin and levofloxacin]; Sinusitis, acute (treatment) [Ciprofloxacin, gatifloxacin, moxifloxacin, and levofloxacin]; Skin and soft tissue infections (treatment) [Ciprofloxacin, levofloxacin, moxifloxacin and ofloxacin]; Typhoid fever (treatment) [Oral ciprofloxacin]; Urinary tract infections, bacterial (prophylaxis) [Lomefloxacin]; Urinary tract infections, bacterial (treatment) [Ciprofloxacin, enoxacin, gatifloxacinlevofloxacin, lomefloxacin, norfloxacin, and ofloxacin]; Chancroid (treatment) [Ciprofloxacin]; Cystic fibrosis, pulmonary exacerbations (treatment) [Ciprofloxacin, alone or in combination with other antibacterial agent]; Meningococcal carriers (treatment) [Oral ciprofloxacin]; Septicemia, bacterial (treatment) [Parenteral ciprofloxacin].

Primary Actions or Pathogenetic Symptoms

MIND: **nervousness;** *anxiety* (fear; nervousness); *depression;* *emotional lability* (crying; depersonalization; dysphoria; euphoria; mental depression; paranoia; quick to react or overreact emotionally; rapidly changing moods); *nervousness;* *thinking, abnormal;* *agitation;* *amnesia* (loss of memory; problems with memory); *aphasia* (problems with speech or speaking); *confusion;* *depersonalization* (feeling of unreality; sense of detachment from self or body); *hallucinations;* *psychosis, acute.*

VERTIGO: **dizziness;** **lightheadedness;** *vertigo* (dizziness or lightheadedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: **headache.**

VISION: *abnormal vision;* *amblyopia* (blurred vision; change in vision; impaired vision).

HEARING: *tinnitus* (continuing ringing or buzzing or other unexplained noise in ears; hearing loss).

NOSE: *parosmia* (change in sense of smell).

FACE: *edema* (swelling, bloating or puffiness of face).

MOUTH: *discoloration, tongue;* *dryness;* *moniliasis, oral* (sore mouth or tongue; white patches in mouth and/or on tongue); *sense of taste, change in; taste; taste loss or perversion* (change in taste; bad, unusual or unpleasant (after) taste); *aphasia* (problems with speech or speaking); *glossitis* (redness, swelling, or soreness of tongue); *stomatitis* (swelling or inflammation of the mouth).

THROAT: *dysphagia* (difficulty swallowing).

STOMACH: **discomfort, mild; nausea; pain, mild; vomiting;** *anorexia* (loss of appetite; weight loss); *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); *gastritis* (burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion).

ABDOMEN: **discomfort, abdominal, mild; pain, abdominal, mild; flatulence** (bloated full feeling; excess air or gas in stomach or intestines; passing gas); *pain, pelvic; colitis, pseudomembranous* (abdominal or stomach cramps; pain; bloating; abdominal tenderness; diarrhea, watery and severe, which may also be bloody; fever; increased thirst; nausea or vomiting; unusual tiredness or weakness; unusual weight loss).

RECTUM: **diarrhea, mild; constipation** (rebound effect?).

BLADDER: *dysuria* (difficulty in urination).

KIDNEYS: *nephritis, interstitial* (bloody or cloudy urine; fever; skin rash; swelling of feet or lower legs).

URINE: *hematuria* (blood in the urine); *crystalluria* (usually when the urinary pH exceeds 7) [Ciprofloxacin and Norfloxacin].

GENITALIA FEMALE: **vaginitis** (vaginal pain and discharge) [most frequent for Sparfloxacin and less frequent for Moxifloxacin]; *moniliasis, vaginal* (vaginal yeast infection).

RESPIRATION: *asthma* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: *pain, chest; asthma* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *fibrillation, atrial* (fast or irregular heartbeat; dizziness; fainting); *palpitation* (fast or irregular heartbeat); *pneumonitis, allergic* (difficult breathing) [Levofloxacin]; *tachycardia* (fainting; fast, pounding, or irregular heartbeat or

pulse); *tachycardia*, *supraventricular*; *torsades de pointes* (fast heartbeat; prolonged QT interval).

BACK: *pain*, *back*.

EXTREMITIES: *arthritis* (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); *edema*, *peripheral* (bloating or swelling of arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); *myalgia* (muscle pain); *pain*, *leg*; *arthralgia* (joint pain); *ataxia* (shakiness and unsteady walk; unsteadiness, trembling, or other problems with muscle control or coordination); *hypertonia* (excessive muscle tone; muscle tension or tightness; muscle stiffness); *incoordination*; *neuropathy*, *peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet, unsteadiness or awkwardness) [Ciprofloxacin, Lomefloxacin, Moxifloxacin, Norfloxacin]; *tendinitis* (pain in calves, radiating to heels; swelling of calves or lower legs); *tendon rupture* (bone pain; lower back or side pain; painful, swollen joints).

SLEEP: *drowsiness*; *insomnia* (sleeplessness; trouble sleeping; unable to sleep); *sleep disorder* (difficulty in sleeping); *somnolence* (sleepiness or unusual drowsiness).

DREAMS: *dream*, *abnormal* (especially with Gatifloxacin and rare with Moxifloxacin).

PERSPIRATION: *sweating*.

SKIN: *photosensitivity* (increased sensitivity of skin to sunlight); *phototoxicity* (blisters; sensation of skin burning; skin itching, rash, or redness; swelling) [more frequent for Lomefloxacin and Sparfloxacin]; *pruritus* (itching skin); *rash*, *purpuric* (pinpoint red or purple spots on skin); *rash*, *pustular* (spots on skin resembling a blister or pimple); *erythema multiforme* (blistering, peeling, loosening of skin; itching; joint or muscle pain) [Levofloxacin]; *rash*, *maculopapular* (rash with flat lesions or small raised lesions on the skin); *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *allergic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath); *edema*, *peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); *hypertension* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); *malaise* (general feeling of discomfort or illness; unusual tiredness or weakness); *myalgia* (muscle pain); *pain*; *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles” , or tingling feelings); *agranulocytosis* (cough or hoarseness; fever with or without chills; general feeling of tiredness or weakness; lower back or side pain; painful or difficult urination; sore throat; sores, ulcers, or white spots on lips or in mouth; unusual bleeding or bruising) [Norfloxacin]; *anaphylactic reaction* (cough; difficulty swallowing; dizziness fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath) [Moxifloxacin and Norfloxacin]; *anaphylactic shock* (sharp drop in blood pressure; hives) [Levofloxacin and Moxifloxacin]; *anemia*, *hemolytic* (bleeding gums; dark urine; fatigue; general body swelling) [Levofloxacin]; *arthralgia* (joint pain); *asthenia* (lack or loss of strength); *convulsions* (seizures); *encephalopathy* (blurred vision; coma; confusion; dizziness) [Levofloxacin]; *eosinophilia* (black, tarry stools; sore throat; swollen glands; unusual bleeding or bruising) [Levofloxacin]; *erythema multiforme* (blistering, peeling, loosening of skin; itching; joint or muscle pain) [Levofloxacin]; *fibrillation*, *atrial* (fast or

irregular heartbeat; dizziness; fainting); *Guillain-Barre syndrome* (sudden numbness and weakness in the arms and legs; inability to move arms and legs) [Norfloxacin]; *hepatotoxicity* (dark or amber urine; loss of appetite; pale stools; stomach pain; unusual tiredness or weakness; yellow eyes or skin); *hyperglycemia* (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); *hyperlipidemia* (large amount of fat in the blood); *hypersensitivity reactions* (skin rash, itching, or redness; shortness of breath; swelling of face or neck; vasculitis); *hypertonia* (excessive muscle tone; muscle tension or tightness; muscle stiffness); *hyperuricemia* (joint pain, stiffness, or swelling; lower back, side, or stomach pain; swelling of feet or lower legs); *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness) (rebound effect?); *injection site reaction* (bleeding; blistering; burning; coldness; discoloration of skin; feeling of pressure; hives; infection; inflammation; itching; lumps; numbness; pain; rash; redness; scarring; soreness; stinging; swelling; tenderness; tingling; ulceration; warmth); *international normalized ratio/prothrombin time, increased* (increased bleeding time) [Levofloxacin]; *jaundice* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet, unsteadiness or awkwardness) [Ciprofloxacin, Lomefloxacin, Moxifloxacin, Norfloxacin]; *organ failure, multi-system* (failure of the heart, lungs, kidneys and/or liver) [Levofloxacin]; *palpitation* (fast or irregular heartbeat); *phlebitis* (pain at site of injection) [for intravenous Ciprofloxacin, Gatifloxacin and Ofloxacin]; *seizures* [Ciprofloxacin]; *Stevens-Johnson Syndrome* (blistering, itching, loosening, peeling, or redness of skin; diarrhea); *tachycardia* (fainting; fast, pounding, or irregular heartbeat or pulse); *tachycardia, supraventricular*; *tendinitis* (pain in calves, radiating to heels; swelling of calves or lower legs); *tendon rupture* (bone pain; lower back or side pain; painful, swollen joints); *thrombocythemia* (pain, warmth, or burning in fingers, toes and legs; headache; dizziness; problems with vision or hearing); *torsades de pointes* (fast heartbeat; prolonged QT interval); *vasodilation* (dizziness; faintness; feeling of warmth or heat; flushing or redness of skin especially on face and neck; headache; light-headedness; sweating; weakness).

DIAGNOSTIC TESTS: QTc-interval prolongation [for Sparfloxacin, less frequent for Moxifloxacin, and rarely for Lomefloxacin]; *agranulocytosis* [Norfloxacin]; *anemia, hemolytic* [Levofloxacin]; *electrocardiogram (ECG), abnormal*; *electroencephalogram, abnormal* (abnormal brain waves) [Levofloxacin]; *eosinophilia* [Levofloxacin]; *fibrillation, atrial*; *hematuria*; *hyperglycemia*; *hyperuricemia*; *international normalized ratio/prothrombin time, increased* [Levofloxacin]; *leukopenia*; *tachycardia, supraventricular*; *thrombocythemia*; *torsades de pointes*; crystalluria (usually when the urinary pH exceeds 7) [Ciprofloxacin and Norfloxacin].

Fluorouracil (Systemic)

Commercial name(s): *Adrucil*.

Category: Antineoplastic.

Conventional indications: Carcinoma, colorectal (treatment); Carcinoma, breast (treatment); Carcinoma, gastric (treatment); Carcinoma, pancreatic (treatment); Carcinoma, bladder (treatment); Carcinoma, prostatic (treatment); Carcinoma, ovarian, epithelial (treatment); Carcinoma, cervical (treatment); Carcinoma, endometrial (treatment); Carcinoma, anal (treatment); Carcinoma, esophageal (treatment); Carcinoma, skin (treatment); Hepatoblastoma (treatment); Carcinoma, hepatocellular, primary (treatment); Carcinoma, head and neck (treatment); Carcinoma, adrenocortical (treatment); Carcinoma, vulvar (treatment); Carcinoma, penile (treatment); Carcinoid tumors (treatment); Glaucoma, open-angle (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *cerebellar syndrome, acute* (trouble with balance).

HEAD: **alopecia** (loss of hair).

MOUTH: **stomatitis, ulcerative** (sores in mouth and on lips).

THROAT: **esophagopharyngitis** (heartburn).

STOMACH: **appetite, loss of; esophagopharyngitis** (heartburn); **nausea; vomiting; ulceration, gastrointestinal** (black, tarry stools; severe nausea and vomiting; stomach cramps).

ABDOMEN: **ulceration, gastrointestinal** (black, tarry stools; severe nausea and vomiting; stomach cramps).

RECTUM: **diarrhea**.

CHEST: *ischemia, myocardial* (chest pain; shortness of breath); *pneumopathy* (cough; shortness of breath)

EXTREMITIES: *palmar-plantar erythrodysesthesia syndrome* (hand-foot syndrome) (tingling of hands and feet, followed by pain, redness, and swelling).

SKIN: **alopecia** (loss of hair); **dermatitis** (skin rash and itching, usually on extremities and less frequently on trunk); *dryness; fissuring*.

GENERALITIES: **alopecia** (loss of hair); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **weakness; thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *bone marrow depression* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); *cerebellar syndrome, acute* (trouble with balance); *ischemia, myocardial* (chest pain; shortness of breath).

DIAGNOSTIC TESTS: **leukopenia; thrombocytopenia**.

Fluorouracil (Topical)

Commercial name(s): *Carac; Efudex; Fluoroplex.*

Category: Antineoplastic, topical.

Conventional indications: Actinic keratoses, multiple (treatment); Actinic cheilitis (treatment); Leukoplakia, mucosal (treatment); Radiodermatitis (treatment); Bowen's disease (treatment); Erythroplasia of Queyrat (treatment); Carcinoma, skin (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *watery eyes.*

SKIN: **allergic reaction or inflammatory response** (redness and swelling of normal skin); **burning feeling at site of application; dermatitis, contact** (skin rash); **itching; oozing; sensitivity to sunlight, increased; soreness; tenderness; darkening of skin; scaling; hypersensitivity reaction, delayed.**

Fluoxetine (Systemic)

Commercial name(s): *Prozac; Prozac Weekly; Sarafem.*

Category: Antidepressant; Antiobsessional agent; Antibulimic agent.

Conventional indications: Depressive disorder, major (treatment); Obsessive-compulsive disorder (treatment); Bulimia nervosa (treatment); Premenstrual dysphoric disorder (treatment); Premature ejaculation (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **akathisia** (inability to sit still; restlessness); **anxiety; nervousness; agitation; behaviors, violent** (use of extreme physical or emotional force); *confusion* (mood or mental changes); *dizziness; emotional lability* (crying; depersonalization; dysphoria; euphoria; mental depression; paranoia; quick to react or overreact emotionally; rapidly changing moods); *irritability; mood, dysphoric* (feeling of distress).

VERTIGO: *dizziness; lightheadedness; vertigo* (feeling that body or surroundings are turning).

HEAD: **headache; alopecia** (hair loss); *cerebral vascular accident* (sudden weakness in arms or legs; sudden, severe chest pain).

EYE: *angioedema* (large, hive-like swelling on eyelids); *cataract* (blindness; blurred vision; decreased vision); *neuritis, optic* (blindness; blue-yellow color blindness; blurred vision; decreased vision; eye pain).

VISION: *changes in vision.*

FACE: *angioedema* (large, hive-like swelling on face, lips); *movement disorders* (unusual or incomplete facial movements).

MOUTH: *dryness; sense of taste, change in; angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

STOMACH: **anorexia** (decreased appetite); **nausea; appetite, increased; cramps; gas; pain; vomiting.**

ABDOMEN: *hepatic failure/necrosis* (abdominal or stomach pain; black, tarry stools; chills; continuing vomiting; light-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: *diarrhea; constipation.*

BLADDER: *urination, frequent.*

KIDNEYS: *kidney failure* (agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness).

URINE: *proteinuria.*

GENITALIA MALE: *anorgasmia; ejaculation, abnormal; impotence* (decreased sexual drive or ability); *libido, decreased; anesthesia, genital; angioedema* (large, hive-like swelling on sex organs); *priapism* (painful or prolonged erection of the penis).

GENITALIA FEMALE: *anorgasmia; libido, decreased; pain, menstrual; anesthesia, genital; angioedema* (large, hive-like swelling on sex organs); *bleeding, vaginal; hyperprolactinemia* (swelling of breasts or unusual milk production).

LARYNX AND TRACHEA: *laryngospasm* (shortness of breath; trouble in breathing; tightness in chest; or wheezing).

RESPIRATION: *bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *distress, respiratory; dyspnea* (trouble in breathing); *hypertension, pulmonary* (shortness of breath); *laryngospasm* (shortness of breath; trouble in breathing; tightness in chest; or wheezing); *pneumonia, eosinophilic* (chest pain; dry cough; fever; general feeling of tiredness or weakness; rapid breathing; shortness of breath; skin rash; wheezing).

CHEST: *pain, chest; arrest, heart* (stopping of heart; no blood pressure or pulse; unconsciousness); *arrhythmias, torsades de pointes-type* (chest pain or discomfort; irregular or slow heart rate; fainting; shortness of breath); *bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *embolism, pulmonary* (anxiety; chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness); *enlargement, breast; fibrillation, atrial* (fast or irregular heartbeat; dizziness; fainting); *galactorrhea, in females* (unusual secretion of milk); *gynecomastia* (swelling of the breasts or breast soreness in both females and males); *hyperprolactinemia* (swelling of breasts or unusual milk production); *hypertension, pulmonary* (shortness of breath); *pain, breast; palpitation* (fast or irregular heartbeat); *pneumonia, eosinophilic* (chest pain; dry cough; fever; general feeling of tiredness or weakness; rapid breathing; shortness of breath; skin rash; wheezing); *tachycardia, ventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *tachycardia* (fast heartbeat).

EXTREMITIES: *akathisia* (inability to sit still; restlessness); *pain, muscle or joint; angioedema* (large, hive-like swelling on hands, legs, feet); *arthralgia; carpal tunnel syndrome; movement disorders* (unusual or incomplete body movements).

SLEEP: *drowsiness; insomnia* (sleeplessness; trouble sleeping; unable to sleep); *yawning.*

DREAMS: *abnormal dreams.*

CHILL: *chills.*

FEVER: *fever.*

PERSPIRATION: *sweating increased.*

SKIN: *hives; itching; skin rash; alopecia* (hair loss); *photosensitivity* (increased sensitivity of skin to sunlight); *bleeding, abnormal* (purple or red spots on skin); *dermatitis, exfoliative* (cracks in the skin; loss of heat from the body; red, swollen skin; scaly skin); *erythema nodosum* (fever; pain in ankles or knees, painful, red lumps under the skin, mostly on the legs); *necrolysis, epidermal* (redness, tenderness, itching, burning, or peeling of skin; red or irritated eyes; sore throat, fever, and chills); *purpura, thrombocytopenic* (unusual bleeding or bruising; bloody nose; heavier menstrual periods; pinpoint red spots on skin; black, tarry stools; blood in urine; black, tarry stools; unusual tiredness or weakness; fever; skin rash); *urticaria* (hives or welts; itching; redness of skin; skin rash); psoriasis, psoriasiform eruption [1].

GENERALITIES: *asthenia* (tiredness or weakness); *tremor* (trembling or shaking); *alopecia* (hair loss); *pain, muscle or joint; vasodilation* (feeling of warmth or heat; flushing or redness of skin, especially on face and neck); *weight gain or weight loss; anaphylactoid events* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *anemia, aplastic* (chest pain; chills; cough; fever; headache; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen or painful glands; tightness in chest; unusual bleeding or bruising; unusual tiredness or weakness; wheezing); *anemia, hemolytic, immune-related* (back, leg, or stomach pains; bleeding gums; chills; dark urine; difficulty breathing; fatigue; fever; general body swelling; headache; loss of appetite; nausea or vomiting; nosebleeds; pale skin; sore throat; yellowing of the eyes or skin); *arrest, heart* (stopping of heart; no blood pressure or pulse; unconsciousness); *arrhythmias, torsades de pointes-type* (chest pain or discomfort; irregular or slow heart rate; fainting; shortness of breath); *arthralgia; bleeding, abnormal* (purple or red spots on skin); *death, sudden unexpected; dyskinesia* (twitching, twisting, uncontrolled repetitive movements of tongue, lips, face, arms, or legs); *edema; fatigue* (unusual tiredness or weakness); *fibrillation, atrial* (fast or irregular heartbeat; dizziness; fainting); *hepatic failure/necrosis* (abdominal or stomach pain; black, tarry stools; chills; continuing vomiting; light-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *hyperprolactinemia* (swelling of breasts or unusual milk production); *hypoglycemia* (anxiety; chills; cold sweats; confusion; cool pale skin; difficulty in concentration; drowsiness; excessive hunger; fast heartbeat; headache; nervousness; shakiness; unsteady walk; unusual tiredness or weakness); *hyponatremia* (confusion; drowsiness; dryness of mouth; increased thirst; lack of energy; seizures) (especially in geriatric or volume-depleted patients); *jaundice, cholestatic* (abdominal or stomach pain; chills; clay-colored stools; dark urine; diarrhea; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *kidney failure* (agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling

of face, ankles, or hands; unusual tiredness or weakness); *lethargy* (unusual drowsiness, dullness, tiredness, weakness or feeling of sluggishness); *leukocytosis*; *lymphadenopathy*; *malaise* (general feeling of discomfort or illness); *movement disorders* (unusual or incomplete body or facial movements); *necrolysis, epidermal* (redness, tenderness, itching, burning, or peeling of skin; red or irritated eyes; sore throat, fever, and chills); *neuroleptic malignant syndrome-like events* (convulsions; difficulty in breathing; fast heartbeat; high fever; high or low blood pressure; increased sweating; loss of bladder control; severe muscle stiffness; unusually pale skin; tiredness); *palpitation* (fast or irregular heartbeat); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *paresthesias (such as electrical shock sensations)* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *purpura, thrombocytopenic* (unusual bleeding or bruising; bloody nose; heavier menstrual periods; pinpoint red spots on skin; black, tarry stools; blood in urine; black, tarry stools; unusual tiredness or weakness; fever skin rash); *seizures*; *serotonin syndrome* (diarrhea; fever; increased sweating; mood or behavior changes; overactive reflexes; racing heartbeat; restlessness; shivering or shaking; may include cardiac arrhythmias, coma, disseminated intravascular coagulation, hypertension or hypotension, renal failure, respiratory failure, seizures, or severe hyperthermia); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red, irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *syndrome of inappropriate antidiuretic hormone (SIADH)*; *syndromes resembling serum sickness*; *tachycardia, ventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *transaminase elevations, mild*; *tachycardia* (fast heartbeat).

DIAGNOSTIC TESTS: *anemia, aplastic*; *anemia, hemolytic*; *fibrillation, atrial*; *hyperprolactinemia*; *hypoglycemia*; *hyponatremia*; *leukocytosis*; *pancytopenia*; *proteinuria*; *QT prolongation*; *thrombocytopenia*; *tachycardia, ventricular*; *torsades de pointes*; *transaminase elevations*.

Complementary Bibliography: [1] Kim GK, Del Rosso JQ. Drug-provoked psoriasis: is it drug induced or drug aggravated? Understanding pathophysiology and clinical relevance. *J Clin Aesthet Dermatol* 2010; **3**(1): 32-38.

Secondary Actions or Rebound Effects: *mania or hypomania* (talking, feeling, and acting with excitement and activity that cannot be controlled); *suicidal ideation* (thoughts of killing oneself; changes in behavior).

Fluticasone (Inhalation-Local)

Commercial name(s): *Flovent*; *Flovent Diskus*; *Flovent Rotadisk*.

Category: Anti-inflammatory (inhalation); Antiasthmatic.

Conventional indications: Asthma, chronic (treatment); Pulmonary disease, chronic obstructive (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *aggression; agitation; depression; irritability* (very rarely and primarily in children); *restlessness*.

VERTIGO: *dizziness; giddiness*.

HEAD: *migraines*.

EYE: *conjunctivitis* (redness or discharge of eye, eyelid, or lining of the eyelid); *irritation; cataracts* (blindness; blurred vision; eye pain); *glaucoma; hypersensitivity reaction, immediate or delayed* (swelling of eyelids); *pressure, intraocular, increased*.

EAR: *otitis media* (ear ache; fever).

NOSE: *congestion* (stuffy nose); *discharge; nasopharyngitis* (sore nose or throat); **pain in nasal sinuses; rhinitis** (runny or stuffy nose); *sinusitis* (headache); *epistaxis* (bloody mucus or unexplained nosebleeds); *irritation due to inhalant; sneezing*.

FACE: *edema, facial* (swelling of the face); *hypersensitivity reaction, immediate or delayed* (swelling of face, lips).

MOUTH: *candidiasis, oropharyngeal* (white patches in mouth or throat); *irritation; aphonia* (loss of voice); *edema, oropharyngeal* (swelling of the mouth, or throat).

THROAT: *candidiasis, oropharyngeal* (white patches in mouth or throat); **dysphonia** (hoarseness or other voice changes); *nasopharyngitis* (sore nose or throat); *tonsillitis* (trouble in swallowing; fever; sore throat); *edema, oropharyngeal* (swelling of the mouth, or throat; tightness in throat; trouble breathing); *sore throat*.

STOMACH: *gastroenteritis/colitis* (diarrhea; lower abdominal pain; vomiting); *nausea; pain or discomfort, abdominal* (stomach pain or burning); *vomiting*.

ABDOMEN: *gastroenteritis/colitis* (diarrhea; lower abdominal pain; vomiting); *inflammatory disease, pelvic* (lower abdominal pain); *pain or discomfort, abdominal* (stomach pain or burning).

RECTUM: *diarrhea*.

GENITALIA FEMALE: *candidiasis, vaginal* (creamy white vaginal discharge); *dysmenorrhea* (faintness; nausea; vomiting; irregular or painful menstrual period); *vaginitis/vulvovaginitis* (increased vaginal discharge; itching; pain on passing urine).

RESPIRATION: *infections, upper respiratory* (greenish-yellow mucus; stuffy nose); *dyspnea* (shortness of breath).

EXTREMITIES: *pain, joint; soreness, muscle; sprain, muscle; strain, muscle; osteoporosis* (pain in back, ribs, arms, or legs; decrease in height).

SLEEP: *insomnia* (trouble in sleeping).

SKIN: *dermatitis* (rash); *angioedema* (large hives); *pruritus* (itching); *rash; urticaria* (hives).

GENERALITIES: *fatigue* (unusual tiredness); *infections, upper respiratory* (greenish-yellow mucus; stuffy nose); **influenza** (fever; general aches and pains; diarrhea; headache; loss of appetite; weakness); **malaise** (general feeling of illness); *pain, joint; soreness, muscle; sprain, muscle; strain, muscle; anaphylactic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness or swelling of the eyelids or

around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *angioedema* (large hives); *cushingoid features* (bone fractures; diabetes mellitus [increased hunger, thirst, or urination]; excessive facial hair in women; fullness or roundness of face, neck, and trunk; high blood pressure; impotence in males; lack of menstrual periods; muscle wasting; weakness; growth velocity retardation in children or adolescents); *ecchymoses, or contusions* (bruising); *growth velocity reduction in children/adolescents*; *hyperactivity* (restlessness; trouble sitting still) (very rarely and primarily in children); *hyperglycemia* (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing unexplained weight loss; vomiting); *hypersensitivity reaction, immediate or delayed* (swelling of face, lips, or eyelids); *osteoporosis* (pain in back, ribs, arms, or legs; decrease in height); *suppression, adrenal*; *systemic eosinophilic conditions (e.g., Churg-Strauss syndrome)* (cardiac complications; neuropathy [numbness and weakness of hands and feet]; vasculitic rash [skin rash]; worsening asthma [shortness of breath, troubled breathing, wheezing]); *weight gain*; hypercorticism (e.g. Cushing's syndrome) (bone fractures; diabetes mellitus [increased hunger, thirst, or urination]; excessive facial hair in women; fullness or roundness of face, neck, and trunk; high blood pressure; impotence in males; lack of menstrual periods; muscle wasting; weakness).

DIAGNOSTIC TESTS: *hyperglycemia*.

Secondary Actions or Rebound Effects: **bronchitis** (cough; shortness of breath); *asthma exacerbation* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *bronchospasm, hypersensitivity-induced* (shortness of breath; tightness in chest; troubled breathing; wheezing); *bronchospasm, immediate* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *bronchospasm, paradoxical* (shortness of breath; tightness in chest; troubled breathing; wheezing); *wheezing* (difficulty in breathing or troubled breathing).

Fluticasone (Nasal)

Commercial name(s): *Flonase*.

Category: Anti-inflammatory, steroidal, (nasal); Corticosteroid (nasal).

Conventional indications: Rhinitis, perennial allergic (treatment); Rhinitis, seasonal allergic (treatment); Rhinitis, nonallergic (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: headache.

EYE: *cataracts; conjunctivitis; glaucoma; pressure, intraocular, increased*.

NOSE: **burning; dryness; epistaxis** (bloody mucus; unexplained nosebleeds); **irritation;** *candidiasis, nasal* (white patches inside nose or throat); *perforation, septal; ulcers; smell, loss of sense of*.

MOUTH: *taste, loss of sense of*.

THROAT: **pharyngitis** (sore throat); *candidiasis, pharyngeal* (white patches inside nose or throat); *dryness; hoarseness; irritation; voice changes*.

STOMACH: **nausea; vomiting;** *pain, abdominal* (stomach pain).

ABDOMEN: *pain, abdominal* (stomach pain).

RECTUM: *diarrhea*.

COUGH: **cough.**

FEVER: *fever.*

GENERALITIES: *influenza-like symptoms* (fever; headache; general aches and pains; loss of appetite; weakness); *anaphylactoid (rare) or hypersensitivity reactions* (angioedema, bronchospasm, dyspnea, edema of face and tongue, pruritus, skin rash, urticaria, wheezing) (rebound effect?); *suppression, hypothalamic-pituitary-adrenal (HPA) axis* (with greater-than-recommended doses).

Secondary Actions or Rebound Effects: **asthma symptoms** (shortness of breath); *bronchitis* (cough; excessive mucus); *rhinorrhea* (runny nose).

Fluticasone and Salmeterol (Inhalation-Local)

Commercial name(s): *Advair 125; Advair 250; Advair Diskus.*

Category: Antiasthmatic; Anti-inflammatory (inhalation); Bronchodilator.

Conventional indications: Asthma, chronic (treatment); Pulmonary disease, chronic obstructive (treatment); Asthma, chronic (treatment); Pulmonary disease, chronic obstructive (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness.*

VERTIGO: dizziness.

HEAD: **headaches.**

EYE: *keratitis or conjunctivitis* (irritation or inflammation of eye); *angioedema* (large, hive-like swelling on eyelids); *cataracts* (blindness; blurred vision; decreased vision); *glaucoma* (blindness; blurred vision; decreased vision; eye pain; headache; nausea or vomiting; tearing); *pressure, intraocular, increased* (blurred vision; change in vision; loss of vision).

NOSE: *blood in nasal mucosa* (bloody nose); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *candidiasis* (white patches in the mouth or on the tongue); *angioedema* (large, hive-like swelling on tongue); *dryness.*

THROAT: **choking; pharyngitis** (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); *candidiasis* (white patches in the throat); *dysphonia* (hoarseness; sore throat; voice changes); *angioedema* (large, hive-like swelling on throat).

STOMACH: *discomfort, gastrointestinal; infection, viral, gastrointestinal* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *nausea; pain, gastrointestinal.*

ABDOMEN: *discomfort, gastrointestinal; infection, viral, gastrointestinal* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *pain, gastrointestinal*.

RECTUM: *diarrhea*.

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

LARYNX AND TRACHEA: **spasm, irritation, or swelling, laryngeal** (high-pitched noise when breathing).

RESPIRATION: **infection, upper respiratory tract** (cough; fever; sneezing; sore throat); **spasm, laryngeal** (high-pitched noise when breathing); **stridor; infection, viral, respiratory** (flu-like symptoms).

COUGH: *cough*.

CHEST: *bronchodilator; inflammation, upper respiratory; heart rate, rapid; palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); *pain, chest*; angina (chest pain or tightness; fast or irregular heartbeat; shortness of breath); arrest, cardiac; arrhythmias (chest pain or tightness; fast or irregular heartbeat; shortness of breath); tachycardia (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations).

EXTREMITIES: *pain, muscle; angioedema* (large, hive-like swelling on hands, legs, feet); *neuropathy* (burning, tingling, numbness or pain in the hands, arms, feet, or legs; sensation of pins and needles; stabbing pain); cramps, muscle.

SLEEP: *sleep disorders*; insomnia (trouble in sleeping).

SKIN: *rash; rash, vasculitic; urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: **infection, upper respiratory tract** (cough; fever; sneezing; sore throat); **inflammation, upper respiratory; heart rate, rapid; infection, viral, respiratory** (flu-like symptoms); *palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); *pain, muscle; sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath); *tremors; eosinophilia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *hypersensitivity reactions* (difficulty in breathing or swallowing; fast heartbeat; shortness of breath; skin itching, rash, or redness; swelling of face, throat, or tongue); arrhythmias (chest pain or tightness; fast or irregular heartbeat; shortness of breath); cramps, muscle; fatigue; hypercorticism (darkening of skin; diarrhea; dizziness; fainting; loss of appetite; mental depression; nausea; skin rash; unusual tiredness or weakness; vomiting); hyperglycemia (blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst); hypertension (high blood pressure); hypotension (blurred vision; confusion; dizziness, faintness, or light-headedness when getting up from a lying or sitting position; sudden sweating; unusual tiredness or weakness) (rebound effect?); malaise (general feeling of discomfort or illness; unusual tiredness or weakness); seizures; tachycardia (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations).

DIAGNOSTIC TESTS: *eosinophilia; hyperglycemia; hypokalemia*.

Secondary Actions or Rebound Effects: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *rhinitis* (stuffy nose; runny nose; sneezing); *rhinorrhea* (runny nose); *asthma exacerbations, serious, increased risk of*;

bronchospasm, paradoxical (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing) (may be life threatening; needs immediate treatment); *death, asthma-related*.

Fluvoxamine (Systemic)

Commercial name(s): *Luvox*.

Category: Antiobsessional agent; Antidepressant.

Conventional indications: Obsessive-compulsive disorder (treatment); Depressive disorder, major (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation; anxiety; apathy; confusion; disinhibition; mania or hypomania; nervousness; psychotic reaction; hallucinations; irritability; memory problems; panic attack; coma; consciousness, loss of*.

VERTIGO: *dizziness; vertigo* (feeling of constant movement of self or surroundings).

HEAD: *headache*.

EYE: *mydriasis* (large pupils).

VISION: *blurred vision*.

MOUTH: *dryness; taste perversion* (change in sense of taste).

STOMACH: *nausea; vomiting; anorexia* (decreased appetite); *dyspepsia* (heartburn); *polydypsia* (increased thirst).

ABDOMEN: *pain, abdominal; flatulence* (gas); liver function abnormalities.

RECTUM: *constipation; diarrhea*.

BLADDER: *frequency, urinary; retention, urinary* (trouble in urinating).

GENITALIA MALE: *anorgasmia; ejaculation, abnormal; impotence* (change in sexual performance or desire); *libido, decreased; orgasm, delayed*.

GENITALIA FEMALE: *anorgasmia; libido, decreased; orgasm, delayed; menstrual changes*.

RESPIRATION: *dyspnea* (trouble in breathing); *pneumonitis, aspiration; respiratory difficulties*.

CHEST: *palpitation* (feeling of fast or irregular heartbeat); *tachycardia* (fast heartbeat); *lactation, unusual* (unusual secretion of milk) (in females); *bradycardia* (slow heartbeat); *pneumonitis, aspiration*.

EXTREMITIES: *myoclonus* (twitching); *ataxia* (clumsiness or unsteadiness); *dystonia* (unusual or sudden body or facial movements; inability to move eyes).

SLEEP: *drowsiness; insomnia* (trouble in sleeping); *yawning*.

DREAMS: *abnormal dreaming*.

PERSPIRATION: *increased sweating*.

SKIN: *necrosis, epidermal, toxic* (redness, tenderness, itching, burning or peeling of skin; red or irritated eyes; sore throat, fever, and chills); *skin rash*.

GENERALITIES: *asthenia or fatigue* (unusual tiredness or weakness); *malaise; myoclonus* (twitching); *palpitation* (feeling of fast or irregular heartbeat); *tachycardia* (fast heartbeat); *tremor* (trembling or shaking); *weight gain or loss, unusual; akinesia or*

hypokinesia (absence of or decrease in body movements); *bleeding, abnormal* (nose bleed; unusual bruising); *dyskinesia* (unusual or incomplete body movements); *dystonia* (unusual or sudden body or facial movements; inability to move eyes); *energy decreased*; *hyperkinesia* (increase in body movements); *seizures*; *serotonin syndrome* (agitation; confusion; diarrhea; fever; overactive reflexes; poor coordination; restlessness; shivering; sweating; talking or acting with excitement you cannot control; trembling or shaking; twitching; cardiac arrhythmias, coma, disseminated intravascular coagulation, hyper- or hypotension, renal failure, respiratory failure, seizures, severe hyperthermia); *syndrome of inappropriate antidiuretic hormone (SIADH)* (difficult urination; irritability; muscle twitching; weakness); bradycardia (slow heartbeat); coma; death; hypotension (low blood pressure).

DIAGNOSTIC TESTS: electrocardiogram (ECG) abnormalities; hypokalemia.

Folic Acid (Systemic)

Commercial name(s): *Apo-Folic; Folvite; Novo-Folacid.*

Category: Nutritional supplement (vitamin); Diagnostic aid (folate deficiency).

Conventional indications: Folic acid deficiency (prophylaxis and treatment); Folate deficiency (diagnosis).

Primary Actions or Pathogenetic Symptoms

MIND: *concentrating, difficulty in; confusion; depression; excitement; irritability; judgment, impaired.*

MOUTH: *taste, unpleasant.*

STOMACH: *anorexia; nausea.*

ABDOMEN: *bloating abdominal; gas.*

RESPIRATION: *bronchospasm* (shortness of breath; troubled breathing; tightness of chest; wheezing).

CHEST: *bronchospasm* (shortness of breath; troubled breathing; tightness of chest; wheezing).

SLEEP: *trouble in sleeping.*

FEVER: *fever.*

SKIN: *erythema* (reddened skin); *itching; skin rash.*

GENERALITIES: *allergic reaction; malaise, general* (general weakness or discomfort).

Follitropin Alfa (Systemic)

Commercial name(s): *Gonal-F.*

Category: Gonadotropin; Infertility therapy agent,

Conventional indications: Infertility, female (treatment); Infertility, male (treatment); Reproductive technologies, assisted.

Primary Actions or Pathogenetic Symptoms

MIND: emotional lability (mood swings) (for patients treated for female infertility); nervousness (for patients treated for female infertility).

VERTIGO: dizziness (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART).

HEAD: migraine (for patients treated for female infertility).

NOSE: sinusitis (for patients treated for female infertility or patients pretreated with a gonadotropin-releasing hormone agonist [GnRHa] undergoing artificial reproductive technologies [ART]).

FACE: acne (for patients treated for female infertility).

THROAT: pharyngitis (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART).

STOMACH: nausea (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART); anorexia (loss of appetite) (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART); dyspepsia (stomach discomfort) (for patients treated for female infertility); thirst, unusual (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART).

ABDOMEN: flatulence (passing of gas) (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART); **pain, abdominal or pelvic** (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART).

RECTUM: diarrhea (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART).

GENITALIA FEMALE: cysts, ovarian (abdominal or pelvic pain; mild bloating) (for patients treated for female infertility); **bleeding, intermenstrual** (uterine bleeding between menstrual periods) (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART); **enlargement, ovarian, mild and uncomplicated** (abdominal bloating; abdominal pain) (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART); **ovarian hyperstimulation syndrome (OHSS)** (abdominal pain, severe; nausea; rapid weight gain; vomiting) (for patients treated for female infertility); dysmenorrhea (painful menstrual periods) (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART); hemorrhage, vaginal (heavy nonmenstrual vaginal bleeding) (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART); lesion on cervix (for patients treated for female infertility); leukorrhea (white vaginal discharge) (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART).

RESPIRATION: infection, upper respiratory tract (body aches or pain; coughing; fever; headache; loss of voice; runny nose; unusual tiredness or weakness) (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART).

CHEST: pain, breast (for patients treated for female infertility); **tenderness, breast** (for patients treated for female infertility); pain, chest (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART); palpitations (fast, racing heartbeat) (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART).

SLEEP: somnolence (sleepiness) (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART).

SKIN: **acne** (for patients treated for female infertility); *pruritus* (itching of skin) (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART).

GENERALITIES: **infection, upper respiratory tract** (body aches or pain; coughing; fever; headache; loss of voice; runny nose; unusual tiredness or weakness) (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART); **influenza-like or cold symptoms** (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART); **ovarian hyperstimulation syndrome (OHSS)** (abdominal pain, severe; nausea; rapid weight gain; vomiting) (for patients treated for female infertility); **sinusitis** (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART); *hypotension* (dizziness; lightheadedness; fainting) (for patients treated for female infertility); *palpitations* (fast, racing heartbeat) (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART); *redness, pain, or swelling at injection site* (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART); **thromboembolism** (venous thrombophlebitis, pulmonary embolism, pulmonary infarction, stroke, arterial occlusion and death).

Follitropin Beta (Systemic)

Commercial name(s): *Follistim*.

Category: Gonadotropin; Infertility therapy agent.

Conventional indications: Infertility, female (treatment); Reproductive technologies, assisted.

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *hair loss*.

ABDOMEN: *pain, abdominal* (for patients treated for female infertility or patients pretreated with a gonadotropin-releasing hormone agonist [GnRHa] undergoing assisted reproductive technology [ART]).

GENITALIA FEMALE: **ovarian hyperstimulation syndrome (OHSS)** (abdominal pain, severe; nausea; rapid weight gain; vomiting) (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART); *cyst, ovarian* (for patients treated for female infertility).

RESPIRATION: *dyspnea* (difficulty in breathing); *tachypnea* (quick, shallow breathing)

CHEST: *tachycardia* (fast, racing heart); *tenderness, breast*

SKIN: *dryness; hair loss; hives; rash*

GENERALITIES: **ovarian hyperstimulation syndrome (OHSS)** (abdominal pain, severe; nausea; rapid weight gain; vomiting) (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART); *redness, pain, or swelling at injection site* (for patients treated for female infertility or patients pretreated with a GnRHa undergoing ART); *hair loss; influenza-like symptoms* (body aches or pain, chills, fever, headache, nausea, unusual tiredness); *tachycardia* (fast, racing heart); *thromboembolism*.

Fomepizole (Systemic)

Commercial name(s): *Antizol*.

Category: Antidote (to ethylene glycol poisoning); Antidote (to methanol poisoning).

Conventional indications: Toxicity, ethylene glycol (treatment); Toxicity, methanol (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *awareness, environmental, decreased; feeling of drunkenness; slurred speech.*

VERTIGO: *dizziness; lightheadedness; vertigo* (dizziness; sensation of spinning).

HEAD: *headache.*

EYE: *nystagmus* (uncontrolled back-and-forth and/or rolling eye movements).

VISION: *blurred vision.*

NOSE: *smell, change in sense of.*

MOUTH: *slurred speech; taste, metallic or unpleasant.*

THROAT: *pharyngitis* (sore throat).

STOMACH: *nausea; anorexia* (loss of appetite); *heartburn; hiccups; vomiting.*

ABDOMEN: *pain, abdominal.*

RECTUM: *diarrhea.*

CHEST: *bradycardia* (slow heartbeat); *tachycardia* (fast heartbeat).

SLEEP: *sleepiness.*

FEVER: *fever.*

SKIN: *allergic reaction* (skin rash).

GENERALITIES: *anemia* (pale skin; troubled breathing, exertional; unusual bleeding or bruising; unusual tiredness or weakness); *bradycardia* (slow heartbeat); *coagulation, intravascular, disseminated (DIC)* (blood in stools; blood in urine; bluish color of fingernails, lips, skin, palms, or nail beds; bruising; excessive sweating; persistent bleeding or oozing from puncture sites, mouth, or nose); *hypotension* (dizziness or lightheadedness); *injection site reaction; lymphangitis; multiorgan system failure; phlebitis* (bluish color; changes in skin color; pain; tenderness; swelling of foot or leg); *phlebosclerosis* (pain or tenderness over affected vein); *seizures; shock* (cold clammy skin; decreased blood pressure; fast, weak pulse or itching over the entire body; sweating; wheezing); *tachycardia* (fast heartbeat).

DIAGNOSTIC TESTS: *anemia.*

Fomivirsen (Parenteral-Local)

Commercial name(s): *Vitravene*.

Category: Antiviral (ophthalmic).

Conventional indications: Cytomegalovirus retinitis (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: headache.

EYE: cataract (blurred vision); **detachment, retinal** (seeing flashes or sparks of light; seeing floating spots before eyes; veil or curtain appearing across part of vision); **edema, retinal** (decreased vision or other changes in vision); **hemorrhage, conjunctival** (redness of eye); **hemorrhage, retinal** (decreased vision or other changes in vision); **inflammation, anterior chamber** (decreased vision or other changes in vision); **inflammation, ocular; pain; pressure, intraocular, increased** (usually asymptomatic; blurred vision; eye pain); **iritis and vitritis, including** (blurred vision or other changes in vision; eye pain; redness of eye; sensitivity of eye to light; watering of eye); **photophobia** (sensitivity of eye to light); **pigment changes, retinal** (change in how colors look); **uveitis; application site reaction** (itching, redness, or soreness at site of injection); **conjunctivitis** (redness of eye); **edema, corneal** (swelling of the eye); **hemorrhage, vitreous** (seeing floating spots before eyes); **hyperemia, conjunctival** (redness of eye); **hypotony** (decreased vision or other changes in vision); **irritation** (redness or soreness of eye); **keratic precipitates** (seeing floating spots before eyes); **neuritis, optic** (decreased vision; pain on moving the eye); **opacity, vitreous** (blurred or decreased vision); **vascular disease, retinal** (decreased vision or other changes in vision).

VISION: abnormal vision; acuity, visual, decreased (decreased vision); blurred vision; color vision, desaturation of (change in how colors look); floaters (seeing floating spots before eyes); **peripheral vision, decreased** (decreased ability to see to the side when looking straight ahead); **photopsia** (seeing flashes or sparks of light); **visual field defect** (decreased vision).

NOSE: sinusitis (headache).

STOMACH: nausea; pain; vomiting; **anorexia** (loss of appetite).

ABDOMEN: pain, abdominal.

RECTUM: diarrhea.

RESPIRATION: **bronchitis** (cough; tightness in chest).

COUGH: **cough**.

CHEST: **bronchitis** (cough; tightness in chest).

BACK: **pain**.

PERSPIRATION: **sweating**.

SKIN: skin rash.

GENERALITIES: asthenia (weakness); sinusitis (headache); **weight loss**.

Fondaparinux (Systemic)

Commercial name(s): Arixtra.

Category: Antithrombotic.

Conventional indications: Deep vein thrombosis (prophylaxis); Deep vein thrombosis, acute (treatment); Pulmonary embolism, acute (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **confusion**.

VERTIGO: **dizziness**.

HEAD: *headache*.

STOMACH: **nausea; vomiting; *dyspepsia*** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain).

RECTUM: **constipation** (difficulty having a bowel movement); *diarrhea* (rebound effect?).

BLADDER: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *retention, urinary* (decrease in urine volume; decrease in frequency of urination; difficulty in passing urine; dribbling urine; painful urination).

KIDNEYS: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

RESPIRATION: *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

CHEST: *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

BACK: *hematoma, spinal or epidural* (may result in long-term or permanent paralysis) (with the use of anticoagulants and neuroaxial [spinal/epidural] anesthesia or spinal puncture).

SLEEP: **insomnia** (sleeplessness; trouble sleeping; inability to sleep).

FEVER: **fever**.

SKIN: **rash; *eruption, bullous*** (skin blisters); *purpura* (pinpoint red or purple spots on skin).

GENERALITIES: *hemorrhage; anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); **edema** (swelling); **irritation, local** (injection site bleeding; pruritus; rash); *drainage, wound, increased; hematoma* (collection of blood under skin; deep, dark purple bruises; itching, pain, redness, or swelling at place of injection); *hemorrhage, post-operative* (bleeding, including intracranial, cerebral and retroperitoneal hemorrhage); *hypokalemia* (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); *hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position; sudden sweating; unusual tiredness or weakness); *infection, wound, post-operative* (red, tender, or oozing skin at incision); *pain; surgical site reaction* (unusual changes to site of surgery); *thrombocytopenia, moderate to severe* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); hemorrhagic complications (abdominal pain or swelling; back pain; blood in eyes; blood in urine; black, sticky stools; bruising or purple areas on skin; coughing up blood; decreased alertness; dizziness; headache; joint pain or swelling; nosebleeds).

DIAGNOSTIC TESTS: **anemia; *hypokalemia; thrombocytopenia, moderate to severe***.

Formoterol (Inhalation-Local)

Commercial name(s): *Foradil; Oxeze*.

Category: Bronchodilator, adrenergic (inhalation).

Conventional indications: Asthma (adjunctive treatment); Asthma (treatment); Chronic obstructive pulmonary disease [COPD] (treatment); Exercise-induced bronchospasm [EIB] (prevention).

Primary Actions or Pathogenetic Symptoms

MIND: agitation; anxiety; restlessness; sputum, increased (increased mucous in throat and lungs); nervousness.

VERTIGO: dizziness.

HEAD: headache.

NOSE: sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

MOUTH: dryness.

THROAT: dysphonia (hoarseness; sore throat; voice changes); pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); tonsillitis (congestion; fever; sore throat; swollen glands).

STOMACH: nausea.

RESPIRATION: **infection, upper respiratory** (cough; fever; sneezing or sore throat); dyspnea (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: **bronchodilator**; infection, chest; pain, chest (chest pain or discomfort); tachycardia (fainting; fast pounding, or irregular heartbeat or pulse; palpitations or pounding in the ears); angina (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea); arrest, cardiac (stopping of heart; no blood pressure or pulse; unconsciousness); arrhythmias (dizziness; fainting; fast, slow, or irregular heartbeat); palpitation.

BACK: pain.

EXTREMITIES: cramps; tremor (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet); tremor, muscle.

SLEEP: disturbances, sleep; insomnia (sleeplessness; trouble sleeping; unable to sleep).

FEVER: fever.

SKIN: exanthema (skin rash); pruritus (itching skin); rash; urticaria (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: **infection, upper respiratory** (cough; fever; sneezing or sore throat); **infection, viral** (chills; cough or hoarseness; fever; cold, flu-like symptoms); cramps; sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); trauma; tremor (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet); hypokalemia (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; or loss of appetite); acidosis, metabolic (shortness of breath; troubled breathing); tachycardia (fainting; fast pounding, or irregular heartbeat or pulse; palpitations or pounding in the ears); acidosis, metabolic (shortness of breath; troubled breathing); arrhythmias (dizziness; fainting; fast, slow, or irregular heartbeat); hypertension (blurred vision; dizziness, severe or continuing; nervousness; headache; pounding in the ears; slow

or fast heartbeat) (rebound effect?); hypotension (dizziness or light-headedness); malaise (general feeling of discomfort or illness; unusual tiredness or weakness); palpitation; seizures (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness); tremor, muscle.

DIAGNOSTIC TESTS: *hypokalemia*; hyperglycemia.

Secondary Actions or Rebound Effects: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *asthma exacerbations, increased risk of serious; bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *death, asthma-related*.

Fosamprenavir (Systemic)

Commercial name(s): *Lexiva*.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus (HIV) infection (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depressive/mood disorders* (depression mood or mental changes).

HEAD: *headache*.

FACE: *paresthesia, oral* (burning or prickling sensation around the mouth); *wasting, facial*.

EXTERNAL THROAT: *enlargement, fat, dorsocervical* (buffalo hump).

STOMACH: *nausea; pain, abdominal* (stomach pain); *vomiting*.

ABDOMEN: *pain, abdominal* (stomach pain).

RECTUM: *diarrhea*.

CHEST: *enlargement, breast*.

EXTREMITIES: *wasting, peripheral*.

SKIN: *rash, mild to severe and/or life-threatening; pruritus* (itching skin).

GENERALITIES: *hypertriglyceridemia* (large amount of triglyceride in the blood) (in protease inhibitor-experienced adult patients); *fatigue* (unusual tiredness or weakness); *hyperglycemia* (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting) (in protease inhibitor-experienced adult patients); *anemia, acute hemolytic* (back, leg, or stomach pains; bleeding gums; chills; dark urine; difficulty breathing; fatigue; fever; general body swelling; headache; loss of appetite; nausea or vomiting; nosebleeds; pale skin; sore throat; yellowing of the eyes or skin); *cushingoid appearance* (increased fat deposits on face, neck, and trunk); *fat redistribution; obesity, central; Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *wasting, peripheral*.

DIAGNOSTIC TESTS: *hypertriglyceridemia; hyperglycemia; anemia, acute hemolytic*.

Foscarnet (Systemic)

Commercial name(s): *Foscavir*.

Category: Antiviral (systemic).

Conventional indications: Cytomegalovirus retinitis (treatment); Cytomegalovirus disease (treatment); Herpes simplex (treatment); Varicella-zoster (treatment).

Primary Actions or Pathogenetic Symptoms

MOUTH: sores; ulcers.

THROAT: sores; ulcers.

STOMACH: anorexia; nausea; vomiting.

ABDOMEN: pain, abdominal.

KIDNEYS: nephrotoxicity (acute tubular necrosis; nephrogenic diabetes insipidus and foscarnet crystal formation in the glomerular capillary lumen; decreased urination, or increased thirst and urination); impairment, renal function.

GENITALIA MALE: sores of the penis; ulcers of the penis.

GENITALIA FEMALE: sores of the vulva; ulcers of the vulva.

GENERALITIES: neurotoxicity (anxiety; confusion; dizziness; fatigue; headache; muscle twitching; tremor; seizures; tingling sensation around mouth; pain or numbness in hands or feet); anemia (unusual tiredness and weakness); granulocytopenia or leukopenia (fever, chills, or sore throat); phlebitis (pain at site of injection).

DIAGNOSTIC TESTS: anemia; granulocytopenia or leukopenia.

Fosfomycin (Systemic)

Commercial name(s): *Monurol*.

Category: Antibacterial (systemic).

Conventional indications: Urinary tract infections, uncomplicated (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

NOSE: rhinitis (runny or stuffy nose).

THROAT: pharyngitis (sore throat).

STOMACH: nausea; dyspepsia (heartburn; indigestion).

ABDOMEN: pain, abdominal.

RECTUM: diarrhea.

GENITALIA FEMALE: vaginitis (vaginal discharge and pain); dysmenorrhea (painful menstruation).

BACK: pain.

SKIN: rash.

GENERALITIES: asthenia (weakness); pain, nonlocalized.

Framycetin (Ophthalmic)

Commercial name(s): *Soframycin Ophthalmic*.

Category: Antibacterial (ophthalmic).

Conventional indications: Blepharitis, bacterial (treatment); Conjunctivitis, bacterial (treatment); Corneal injuries (treatment); Corneal ulcers (treatment); Meibomianitis (treatment); Ocular infections, following foreign body removal (prophylaxis).

Primary Actions or Pathogenetic Symptoms

No side effects reported.

Frovatriptan (Systemic)

Commercial name(s): *Frova*.

Category: Antimigraine agent.

Conventional indications: Headache, migraine (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

FACE: *flushing* (feeling of warmth; redness of the face).

MOUTH: *dryness*.

EXTERNAL THROAT: *flushing* (feeling of warmth; redness of the neck).

STOMACH: *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); *nausea*.

CHEST: *pain, chest; flushing* (feeling of warmth; redness of the upper chest); *cardiac events, serious, including some that have been fatal* (extremely rare) (coronary artery vasospasm, transient myocardial ischemia, myocardial infarction, ventricular tachycardia and ventricular fibrillation).

EXTREMITIES: *pain, skeletal*.

SLEEP: *somnolence* (sleepiness or unusual drowsiness).

SKIN: *flushing* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest).

GENERALITIES: *fatigue* (unusual tiredness or weakness); *flushing*; *hot or cold sensation*; *pain, skeletal*; *paresthesia* (tingling, burning, or prickly sensations); *cardiac events, serious, including some that have been fatal* (extremely rare) (coronary artery vasospasm, transient myocardial ischemia, myocardial infarction, ventricular tachycardia and ventricular fibrillation).

Secondary Actions or Rebound Effects: *headache*.

Fructose, Dextrose, and Phosphoric Acid (Oral-Local)

Commercial name(s): *Emetrol*.

Category: Antiemetic.

Conventional indications: Symptomatic relief of nausea and vomiting (insufficient evidence to establish effectiveness).

Primary Actions or Pathogenetic Symptoms

STOMACH: pain.

ABDOMEN: pain, abdominal.

RECTUM: diarrhea.

GENERALITIES: *intolerance, fructose* (fainting; swelling of face, arms, and legs; unusual bleeding; vomiting; weight loss; yellow eyes or skin).

Fulvestrant (Systemic)

Commercial name(s): *Faslodex*.

Category: Antineoplastic.

Conventional indications: Carcinoma, breast (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **depression** (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); anxiety (fear; nervousness).

VERTIGO: **dizziness**; *vertigo* (dizziness or lightheadedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: **headache**.

FACE: **edema, peripheral** (bloating or swelling of face).

THROAT: **pharyngitis** (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: **anorexia** (loss of appetite; weight loss); **nausea; vomiting**.

ABDOMEN: **pain, abdominal or pelvic**.

RECTUM: **constipation; diarrhea**.

BLADDER: **infection, urinary tract** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: **infection, urinary tract** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

GENITALIA FEMALE: *bleeding, vaginal*.

RESPIRATION: **dyspnea** (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

COUGH: **cough, increased**.

CHEST: **pain, chest**.

BACK: **pain**.

EXTREMITIES: **edema, peripheral** (bloating or swelling of arms, hands, lower legs, or feet; tingling of hands or feet); **pain, bone**; arthritis (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving).

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep).

FEVER: fever.

PERSPIRATION: sweating.

SKIN: rash.

GENERALITIES: asthenia (lack or loss of strength); **edema, peripheral** (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); **flu syndrome** (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **pain; pain, bone, or injection site; paresthesia** (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); **vasodilation** (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or light-headedness; sweating); **anemia** (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); **arthritis** (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); **injury, accidental**; **leukopenia** (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **thromboembolic phenomena** (pain in chest, groin, or legs, especially the calves; difficulty breathing; severe, sudden headache; slurred speech; sudden, unexplained shortness of breath; sudden loss of coordination; sudden, severe weakness or numbness in arm or leg; vision changes).

DIAGNOSTIC TESTS: anemia; leukopenia.

Furazolidone (Oral-Local)

Commercial name(s): *Furoxone; Furoxone Liquid.*

Category: Antibacterial (oral-local); Antiprotozoal.

Conventional indications: Cholera (treatment); Diarrhea, bacterial (treatment); Giardiasis (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

STOMACH: nausea; vomiting.

ABDOMEN: pain, abdominal.

RECTUM: diarrhea.

URINE: discoloration of urine, dark yellow to brown.

GENERALITIES: anemia, hemolytic, mild, reversible (in G6PD-deficient patients); **hypersensitivity reactions** (fever; itching; joint pain; skin rash or redness); **leukopenia** (sore throat and fever).

DIAGNOSTIC TESTS: discoloration of urine, dark yellow to brown; leukopenia.

Fusidic acid (Systemic)

Commercial name(s): *Fucidin Leo*.

Category: Antibacterial (systemic).

Conventional indications: Bone and joint infections (treatment); Skin and soft tissue infections (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

VISION: *blurred vision*.

STOMACH: *anorexia*; *dyspepsia* (stomach pain; loss of appetite; acid or sour stomach; belching; heartburn; indigestion); *nausea*; *vomiting*; discomfort, epigastric or gastric.

ABDOMEN: liver biochemistry, abnormal; *serum bilirubin level or transaminases, elevated*.

RECTUM: diarrhea (increase in bowel movements; loose stools; soft stools).

SKIN: *pruritus* (skin rash).

GENERALITIES: *jaundice* (itching; loss of appetite; nausea; abdominal or stomach pain; unusual tiredness or weakness; yellow eyes or skin); *thrombophlebitis or venospasm* (bluish color; changes in skin color; pain; tenderness; swelling of foot or leg) (observed with intravenous administration); *serum bilirubin level or transaminases, elevated*.

DIAGNOSTIC TESTS: *serum bilirubin level or transaminases, elevated*.

Gabapentin (Systemic)

Commercial name(s): *Neurontin; Novo-Gabapentin.*

Category: Anticonvulsant; Antineuralgic.

Conventional indications: Epilepsy (treatment adjunct); Post-herpetic Neuralgia; Pain, peripheral neuropathic, diabetic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: emotional lability (anxiety; behavior problems; crying; false sense of well-being; mental depression; reacting too quickly, too emotionally, or overreacting; rapidly changing moods) (in pediatric patients 3 to 12 years of age); **hostility** (aggressive behavior; suspiciousness or distrust) (in pediatric patients 3 to 12 years of age); **thinking, abnormal** (confusion; delusions; dementia); **thought disorders** (concentration problems and change in school performance) (in pediatric patients 3 to 12 years of age); amnesia (loss of memory); depression; dysarthria (slurred speech); irritability; mood or mental changes; nervousness; thinking, trouble in; lethargy (sluggishness).

VERTIGO: dizziness; gait, abnormal (change in walking and balance; clumsiness, or unsteadiness).

HEAD: headache.

EYE: nystagmus (continuous, uncontrolled, back-and-forth and/or rolling eye movements); conjunctivitis (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing); angioedema (large, hive-like swelling on eyelids).

VISION: blurred vision; diplopia (double vision); amblyopia (blurred vision; change in vision; impaired vision).

EAR: otitis media (earache; redness or swelling in ear).

HEARING: tinnitus (noise in ears).

NOSE: rhinitis (runny nose).

FACE: angioedema (large, hive-like swelling on face, lips).

MOUTH: dryness; dysarthria (slurred speech); angioedema (large, hive-like swelling on tongue).

TEETH: dental abnormalities.

THROAT: dryness; pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); angioedema (large, hive-like swelling on throat).

STOMACH: appetite increased or decreased; dyspepsia (indigestion); nausea; vomiting.

ABDOMEN: flatulence (bloated full feeling; excess air or gas in stomach or intestines; passing gas); pain, abdominal.

RECTUM: diarrhea; constipation.

BLADDER: urination, frequent.

GENITALIA MALE: impotence (decrease in sexual desire or ability); angioedema (large, hive-like swelling on sex organs).

GENITALIA FEMALE: angioedema (large, hive-like swelling on sex organs).

RESPIRATION: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *infection, respiratory* (cough; fever; sneezing; sore throat).

COUGH: *cough*.

CHEST: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing).

BACK: *pain*.

EXTREMITIES: *ataxia* (clumsiness or unsteadiness); *edema, peripheral* (swelling of hands, feet, or lower legs); *myalgia* (muscle ache or pain); *fracture* (pain or swelling in arms or legs); *incoordination*; *twitching*; *angioedema* (large, hive-like swelling hands, legs, feet).

SLEEP: *somnolence* (drowsiness); *insomnia* (trouble in sleeping) (rebound effect?).

FEVER: *fever*.

SKIN: *abrasion* (pain, redness, rash, swelling, or bleeding where the skin is rubbed off); *pruritus* (itching skin); *rash*; *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

GENERALITIES: *asthenia* (lack or loss of strength); *fatigue* (unusual tiredness or weakness); *infection* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *infection, viral* (chills; cough or hoarseness; fever; cold or flu-like symptoms); *myalgia* (muscle ache or pain); *tremor* (trembling or shaking); *fracture* (pain or swelling in arms or legs); *paresthesia* (increased sensitivity to pain; increased sensitivity to touch; tingling in the hands and feet); *hyperglycemia* (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); *hypotension* (low blood pressure); *infection, respiratory* (cough; fever; sneezing; sore throat); *injury, accidental*; *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *vasodilatation* (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or lightheadedness; sweating); *weight gain*; *death*; *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *hyponatremia* (coma; confusion; convulsions; decreased urine output; dizziness; fast or irregular heartbeat; headache; increased thirst; muscle pain); *jaundice* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eye; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *hyperglycemia*; *leukopenia*; *hyponatremia*.

Secondary Actions or Rebound Effects: **hyperkinesia** (hyperactivity or increase in body movements; restlessness) (in pediatric patients 3 to 12 years of age); *seizure frequency, increasing, possibility of.*

Gadobenate (Systemic)

Commercial name(s): *MultiHance.*

Category: Diagnostic aid, paramagnetic (brain disorders; spine disorders).

Conventional indications: Brain imaging, magnetic resonance; Spinal imaging, magnetic resonance.

Primary Actions or Pathogenetic Symptoms

MIND: *aphasia* (problems with speech or speaking); *stupor* (decreased awareness or responsiveness; severe sleepiness).

VERTIGO: *dizziness; syncope* (fainting).

HEAD: *headache.*

EYE: *disorder, eye.*

VISION: *abnormal vision* (changes in vision).

EAR: *pain.*

HEARING: *tinnitus* (continuing ringing or buzzing or other unexplained noise in ears; hearing loss).

NOSE: *parosmia* (transient, mild, pleasant aromatic odor); *rhinitis* (stuffy nose; runny nose; sneezing).

FACE: *edema, facial* (swelling of the face).

MOUTH: *aphasia* (problems with speech or speaking); *dryness; salivation, increased* (increased watering of mouth); *taste perversion* (change in taste; bad unusual or unpleasant (after) taste).

STOMACH: *nausea; dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); *pain, abdominal* (stomach pain); *thirst; vomiting.*

ABDOMEN: *bilirubinemia* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *pain, abdominal* (stomach pain); *pancreatitis, acute necrotizing* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: *constipation* (difficulty having a bowel movement [stool]); *diarrhea; incontinence, fecal* (loss of bowel control).

BLADDER: *frequency, urinary* (increased need to urinate; passing urine more often); *incontinence, urinary* (loss of bladder control); *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *urgency, urinary* (frequent strong or increased urge to urinate).

KIDNEYS: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

URINE: *albuminuria* (cloudy urine); *hematuria* (blood in urine); *glycosuria* (sugar in the urine).

LARYNX AND TRACHEA: *laryngismus* (spasm of throat).

RESPIRATION: *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); *hyperventilation* (deep or fast breathing with dizziness, numbness to feet, hands and around mouth).

COUGH: *cough, increased*.

CHEST: *arrhythmia* (dizziness; fainting; fast, slow, or irregular heartbeat); *bradycardia* (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); *edema, pulmonary, acute* (chest pain; difficult, fast, noisy breathing, sometimes with wheezing blue lips and fingernails; pale skin; increased sweating; coughing that sometimes produces a pink frothy sputum; shortness of breath; swelling in legs and ankles); *edema, lung* (swelling of lung); *embolus, pulmonary* (anxiety; chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness); *extrasystoles, supraventricular* (rapid or irregular heartbeat); *extrasystoles, ventricular* (extra heart beat); *fibrillation, atrial* (fast or irregular heartbeat; dizziness; fainting); *ischemia, myocardial* (chest pain or discomfort; nausea; pain or discomfort in arms, jaw, back or neck; shortness of breath; sweating; vomiting); *pain, chest; palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); *tachycardia* (fast, pounding, or irregular heartbeat or pulse).

BACK: *pain*.

EXTREMITIES: *edema, peripheral* (swelling of hands, ankles, feet, or lower legs); *hemiplegia* (inability to move legs or arms; paralysis of one side of the body); *hypertonia* (excessive muscle tone; muscle tension or tightness; muscle stiffness); *myalgia* (joint pain, swollen joints, muscle aching or cramping, muscle pains or stiffness, difficulty in moving); *myositis* (muscle pain; unusual tiredness or weakness); *paralysis*; *tremor* (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet).

CHILL: *chills*.

FEVER: *fever*.

PERSPIRATION: *sweating*.

SKIN: *pruritus* (itching skin); *pruritus, increased* (increased itching in patients with cirrhosis); *rash*; *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *injection site reaction* (bleeding, blistering, burning, coldness, discoloration of skin; feeling of pressure, hives, infection, inflammation, itching, lumps, numbness, pain, rash, redness, scarring, soreness, stinging, swelling, tenderness, tingling, ulceration, or warmth at site of injection); *vasodilatation* (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or light-headedness; sweating); *albuminuria*; *anaphylactic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *arrhythmia* (dizziness; fainting; fast, slow, or irregular heartbeat); *basophilia*; *bilirubinemia* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *bradycardia* (chest pain or discomfort; lightheadedness; dizziness or fainting;

shortness of breath; slow or irregular heartbeat; unusual tiredness); *convulsions* (seizures); *extrasystoles, supraventricular* (rapid or irregular heartbeat); *extrasystoles, ventricular* (extra heart beat); *feeling cold*; *glicosuria*; *hemiplegia* (inability to move legs or arms; paralysis of one side of the body); *hemolysis*; *hyperglycemia* (abdominal pain; blurred vision; dry mouth; fatigue; flushed; dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); *hypertonia* (excessive muscle tone; muscle tension or tightness; muscle stiffness); *ischemia, myocardial* (chest pain or discomfort; nausea; pain or discomfort in arms, jaw, back or neck; shortness of breath; sweating; vomiting); *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *hypocalcemia* (abdominal cramps; confusion; convulsions; difficulty in breathing; irregular heartbeats; mood or mental changes; muscle cramps in hands, arms, feet, legs, or face; numbness and tingling around the mouth, fingertips, or feet; shortness of breath; tremor); *hypoglycemia* (anxiety; blurred vision; chills; cold sweats; coma; confusion; cool pale skin; depression; dizziness; fast heartbeat; headache; increased hunger; nausea; nervousness; nightmares; seizures; shakiness; slurred speech; unusual tiredness or weakness); *hyponatremia* (coma; confusion; convulsions; decreased urine output; dizziness; fast or irregular heartbeat headache increased thirst muscle pain or cramps nausea or vomiting shortness of breath swelling of face, ankles, or hands unusual tiredness or weakness); *hypoproteinemia* (abdominal pain; diarrhea; fat in the stool); *hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); *infection* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *inflammation, injection site* (redness or swelling of skin); *leukocytosis* (chills; cough; eye pain; fever; general feeling of illness; headache; sore throat; unusual tiredness); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *malaise* (general feeling of discomfort or illness; unusual tiredness or weakness); *myalgia* (joint pain, swollen joints, muscle aching or cramping, muscle pains or stiffness, difficulty in moving); *myositis* (muscle pain; unusual tiredness or weakness); *pain*; *palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); *paralysis*; *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *stupor* (decreased awareness or responsiveness; severe sleepiness); *tachycardia* (fast, pounding, or irregular heartbeat or pulse).

DIAGNOSTIC TESTS: *abnormal lab tests; albuminuria; basophilia; bilirubinemia; electrocardiogram abnormality; extrasystoles, supraventricular; glycosuria; hematuria; hemolysis; hypoglycemia; hyperglycemia; hyperkalemia; hypocalcemia; hypoglycemia; hyponatremia; hypoproteinemia; leukocytosis; leukopenia.*

Gadodiamide (Systemic)

Commercial name(s): *Omniscan.*

Category: Diagnostic aid, paramagnetic (brain disorders; spine disorders).

Conventional indications: Brain imaging, magnetic resonance; Spinal lesions imaging, magnetic resonance.

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; confusion.*

VERTIGO: *dizziness.*

HEAD: *headache.*

MOUTH: *dryness; taste, changes in.*

STOMACH: *nausea.*

RECTUM: *diarrhea.*

CHEST: *pains, chest.*

GENERALITIES: *convulsions; pain at injection site; pseudo-allergic reaction* (itching, watery eyes; skin rash or hives; swelling of face; thickening of tongue; wheezing, tightness in chest, or troubled breathing); *vasodilatation* (unusual warmth and flushing of skin).

Gadopentetate (Systemic)

Commercial name(s): *Magnevist.*

Category: Diagnostic aid, paramagnetic (brain disorders; spine disorders; breast disease; cardiac disease; liver disorders; musculoskeletal disease; uterus disorders).

Conventional indications: Brain imaging, magnetic resonance; Spinal lesions imaging, magnetic resonance; Body imaging, magnetic resonance; Cardiac imaging, magnetic resonance.

Primary Actions or Pathogenetic Symptoms

MIND: *agitation; anxiety; stupor.*

VERTIGO: *dizziness; syncope* (fainting).

HEAD: *headache.*

EYE: *irritation; nystagmus* (uncontrolled eye movements); *pain; tearing.*

VISION: *diplopia* (double vision; seeing double).

EAR: *pain.*

HEARING: *buzzing; ringing; tinnitus* (continuing ringing or buzzing or other unexplained noise in ears; hearing loss).

NOSE: *rhinorrhea* (runny nose); *sneezing.*

FACE: *swelling of the face.*

MOUTH: *dryness; salivation, increased.*

TEETH: *pain.*

THROAT: *irritation; spasm.*

STOMACH: *nausea; pain; thirst; vomiting.*

ABDOMEN: *pain, abdominal or pelvic.*

RECTUM: *diarrhea.*

RESPIRATION: *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest wheezing).

CHEST: angina pectoris (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea); arrhythmia (dizziness; fainting; fast, slow, or irregular heartbeat); infarction, myocardial (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); pain, chest; tachycardia (fast, pounding, or irregular heartbeat or pulse); tightness, chest.

BACK: pain.

CHILL: shivering.

FEVER: fever.

PERSPIRATION: sweating.

SKIN: erythema multiforme (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); hives; itching; necrolysis, epidermal (redness, tenderness, itching, burning, or peeling of skin; red or irritated eyes; sore throat, fever, and chills); pallor; rash.

GENERALITIES: **coldness at injection site**; arrhythmia (dizziness; fainting; fast, slow, or irregular heartbeat); compartment syndrome; convulsions; erythema multiforme (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); hypertension; hypotension, severe (unusual tiredness or weakness); infarction, myocardial (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); lymphangitis; necrolysis, epidermal (redness, tenderness, itching, burning, or peeling of skin; red or irritated eyes; sore throat, fever, and chills); pain and/or burning sensation at injection site; paresthesia (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); pseudo-allergic reaction (skin rash or hives; wheezing, tightness in chest, or troubled breathing); shivering; stupor; tachycardia (fast, pounding, or irregular heartbeat or pulse); thrombophlebitis, deep vein (changes in skin color; pain; tenderness; swelling of foot or leg); tiredness; trembling; vasodilation (unusual warmth and flushing of skin); weakness.

DIAGNOSTIC TESTS: electrocardiogram changes, non-specific.

Gadoteridol (Systemic)

Commercial name(s): ProHance.

Category: Diagnostic aid, paramagnetic (brain disorders; spine disorders).

Conventional indications: Brain imaging, magnetic resonance; Spinal lesions imaging, magnetic resonance.

Primary Actions or Pathogenetic Symptoms

MIND: anxiety; confusion.

VERTIGO: dizziness.

HEAD: headache.

MOUTH: taste, changes in.

STOMACH: *nausea; vomiting.*

RECTUM: *diarrhea.*

CHEST: *heartbeat, fast or irregular.*

GENERALITIES: *blood pressure, low; heartbeat, fast or irregular; pain at injection site; pseudo-allergic reaction* (itching, watery eyes; skin rash or hives; swelling of face; thickening of tongue; wheezing, tightness in chest, or troubled breathing); *vasodilation* (unusual warmth and flushing of skin).

Gadoversetamide (Systemic)

Commercial name(s): *OptiMark.*

Category: Diagnostic aid, paramagnetic (brain disorders; spine disorders; liver disorders).

Conventional indications: Brain imaging, magnetic resonance; Liver lesions imaging, magnetic resonance; Spine lesions imaging, magnetic resonance.

Primary Actions or Pathogenetic Symptoms

MIND: *agitation; anxiety; confusion; depersonalization* (loss of sense of reality); *hallucinations* (seeing, hearing or smelling things that are not there).

VERTIGO: *dizziness; fainting.*

HEAD: *headache.*

EYE: *conjunctivitis* (redness, pain, or swelling of eye).

VISION: *amblyopia* (blurred vision); *diplopia* (double vision).

HEARING: *changes in sense of hearing.*

NOSE: *rhinitis* (stuffy, runny nose or sneezing); *nosebleeds; smell, change in sense of.*

FACE: *edema, generalized* (swelling of face).

MOUTH: *taste perversion* (bad, unusual, or unpleasant taste or aftertaste); *dryness; salivation, increased.*

THROAT: *soreness; spasm; voice changes.*

STOMACH: *dyspepsia* (stomach discomfort, upset, or pain; heartburn, belching, acid or sour stomach; indigestion); *nausea; appetite increase or decrease; thirst; vomiting.*

ABDOMEN: *pain, abdominal; bloating; flatulence; gas.*

RECTUM: *diarrhea; constipation.*

BLADDER: *urination, frequent or painful; volume, urine, decreased.*

URINE: *volume, urine, decreased.*

RESPIRATION: *difficulty breathing.*

COUGH: *cough; hemoptysis* (spitting or coughing up blood).

CHEST: *arrhythmia* (fast or irregular heart beat, including tachycardia and palpitations); *hemoptysis* (spitting or coughing up blood); *pain, chest.*

BACK: *pain.*

EXTREMITIES: *arthralgias* (pain, swelling, or redness in joints); *dystonia* (twisting or other unusual body movements); *edema, generalized* (swelling of face, hands, lower legs or feet); *hypertonia* (increased muscle tone); *spasm, muscular.*

SLEEP: *drowsiness.*

SKIN: *pallor* (paleness); *rash.*

GENERALITIES: **injection site reactions;** **vasodilation** (unusual warmth and flushing of skin); *asthenia* (loss of strength or energy; muscle pain or weakness; unusual feeling of weakness); *paresthesia* (burning, tingling or prickly sensation); *arrhythmia* (fast or irregular heart beat, including tachycardia and palpitations); *arthralgias* (pain, swelling, or redness in joints); *blood glucose increase or decrease* (dizziness; increased urination); *blood pressure increase or decrease* (dizziness); *dystonia* (twisting or other unusual body movements); *edema, generalized* (swelling of face, hands, lower legs or feet); *hypercalcemia*; *hypertonia* (increased muscle tone); *hyponatremia* (confusion; seizures [convulsions]; decreased urine output; dizziness); *spasm, muscular*; *thrombocytopenia* (black, tarry stools; unusual bleeding or bruising); *thrombophlebitis* (hot skin, pain, swelling, tenderness, and/or skin color changes); *tremor*; *weakness*.

DIAGNOSTIC TESTS: *blood glucose increase or decrease*; *hypercalcemia*; *hyponatremia*; *thrombocytopenia*.

Galantamine (Systemic)

Commercial name(s): *Razadyne*; *Razadyne ER*.

Category: Dementia symptoms treatment adjunct.

Conventional indications: Dementia, Alzheimer-type, mild to moderate (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **depression** (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); *aggression* (attack, assault, force); consciousness, brief loss of.

VERTIGO: *dizziness*; *syncope* (high or low blood pressure; dizziness; light-headedness; feeling faint); near-syncope.

HEAD: *headache*.

EYE: lacrimation (tearing of the eyes).

NOSE: *rhinitis* (stuffy nose).

MOUTH: salivation, increased (drooling; watering of the mouth).

STOMACH: **anorexia** (loss of appetite; weight loss); **nausea**; **vomiting**; *dyspepsia* (indigestion); *bleed, gastrointestinal, upper and lower* (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe stomach pain; constipation); cramping, gastrointestinal.

ABDOMEN: *pain, abdominal*; *bleed, gastrointestinal, upper and lower* (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe stomach pain; constipation); cramping, gastrointestinal.

RECTUM: **diarrhea**; *bleed, gastrointestinal, upper and lower* (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe stomach pain; constipation); defecation.

BLADDER: **infection, urinary tract** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); urination.

KIDNEYS: **infection, urinary tract** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

URINE: *hematuria* (blood in urine; lower back pain; pain or burning while urinating).

RESPIRATION: depression, respiratory (slow or troubled breathing) (increasing muscular weakness may affect respiratory muscles, resulting in death).

CHEST: *bradycardia* (chest pain or discomfort; lightheadedness, dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); pain, chest, substernal; QT prolongation; tachycardia, ventricular; torsades de pointes.

EXTREMITIES: fasciculation, muscle; weakness, muscle.

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep); *somnolence* (sleepiness; unusual drowsiness).

PERSPIRATION: sweating, increased.

GENERALITIES: **weight decrease;** *anemia* (pale skin; troubled breathing, exertional; unusual bleeding or bruising; unusual tiredness or weakness); *bradycardia* (chest pain or discomfort; lightheadedness, dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); *fatigue* (unusual tiredness or weakness); *tremor*; *dehydration* (confusion; decreased urination; dizziness; dry mouth; fainting; increase in heart rate; lightheadedness; rapid breathing; sunken eyes; thirst; unusual tiredness or weakness; wrinkled skin) (including rare, severe cases leading to renal insufficiency and renal failure); convulsions and collapse (seizures); *hypokalemia* (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); fasciculation, muscle; hypotension (low blood pressure; dizziness; fainting); QT prolongation; tachycardia, ventricular; torsades de pointes; weakness, muscle.

DIAGNOSTIC TESTS: *anemia*; *hematuria*; *hypokalemia*; QT prolongation; tachycardia, ventricular; torsades de pointes.

Gallium Citrate Ga 67 (Systemic)

Commercial name(s): *Neoscan*.

Category: Diagnostic aid, radioactive (neoplastic disease; focal inflammatory lesions).

Conventional indications: Neoplastic disease (diagnosis); Inflammatory lesions, focal (diagnosis); Immunodeficiency syndrome, acquired, related disorders of (diagnosis); Fever, unknown origin, source of (diagnosis).

Primary Actions or Pathogenetic Symptoms

STOMACH: *nausea; vomiting*.

CHEST: *heartbeat, fast*.

SKIN: *hives; itching; rash*.

GENERALITIES: *heartbeat, fast*.

Gallium Nitrate (Systemic)

Commercial name(s): *Ganite*.

Category: Antihypercalcemic.

Conventional indications: Hypercalcemia, associated with neoplasms (treatment).

Primary Actions or Pathogenetic Symptoms

MOUTH: taste, metallic.

STOMACH: nausea; vomiting.

RECTUM: diarrhea.

KIDNEYS: **nephrotoxicity** (blood in urine; greatly increased or decreased frequency of urination or amount of urine; increased thirst; loss of appetite; nausea; vomiting).

GENERALITIES: *hypocalcemia* (abdominal cramps; confusion; muscle spasms); **hypophosphatemia** (bone pain; loss of appetite; muscle weakness); *alkalosis, respiratory, mild; anemia* (unusual tiredness or weakness); *serum bicarbonate, decreased*.

DIAGNOSTIC TESTS: *hypocalcemia; hypophosphatemia; alkalosis, respiratory, mild; anemia* (unusual tiredness or weakness); *serum bicarbonate, decreased*.

Galsulfase (Systemic)

Commercial name(s): Naglazyme.

Category: Enzyme replenisher.

Conventional indications: Mucopolysaccharidosis VI (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache*.

EYE: *conjunctivitis* (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing); *opacification, corneal, increased* (blindness; blurred vision; decreased vision); *edema, angioneurotic* (large, hive-like swelling on eyelids).

EAR: **pain**; *otitis media* (earache; redness or swelling in ear).

NOSE: *congestion* (stuffy nose).

FACE: *edema* (swelling of the face); *edema, angioneurotic* (large, hive-like swelling on face, lips).

MOUTH: *edema, angioneurotic* (large, hive-like swelling on tongue).

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); *edema, angioneurotic* (large, hive-like swelling on throat).

STOMACH: **gastroenteritis** (abdominal or stomach pain diarrhea loss of appetite nausea weakness); *nausea; pain, abdominal* (stomach pain); *vomiting*.

ABDOMEN: **gastroenteritis** (abdominal or stomach pain diarrhea loss of appetite nausea weakness); *hernia, umbilical* (hernia of the navel); *pain, abdominal* (stomach pain).

GENITALIA MALE: *edema, angioneurotic* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *edema, angioneurotic* (large, hive-like swelling on sex organs).

RESPIRATION: *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest wheezing); *apnea* (bluish lips or skin, not breathing); *bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *distress, respiratory* (shortness of breath, troubled breathing, tightness in chest, or

wheezing); *infections, upper respiratory* (ear congestion; nasal congestion; chills; cough; fever; sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

COUGH: *cough*.

CHEST: *pain, chest; bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *pain, retrosternal* (pain behind the sternum).

EXTREMITIES: *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *edema, angioneurotic* (large, hive-like swelling on hands, legs, feet); *pain, joint*.

CHILL: *rigors* (feeling unusually cold; shivering).

FEVER: *fever*.

SKIN: *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: **immunogenicity** (body produces substance that can bind to drug making it less effective or cause side effects); **pain;** *areflexia* (loss of or increase in reflexes); *hypertension* (blurred vision; dizziness; nervousness; headache pounding in the ears; slow or fast heartbeat); *malaise* (general feeling of discomfort or illness; unusual tiredness or weakness); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *hypotension* (blurred vision confusion dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly sweating unusual tiredness or weakness) (rebound effect?); *infections, upper respiratory* (ear congestion; nasal congestion; chills; cough; fever; sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *infusion reactions* (dizziness; fever or chills; facial swelling; headache; nausea or vomiting; shortness of breath skin rash; weakness); *pain, joint*.

Ganciclovir (Implantation-Ophthalmic)

Commercial name(s): *Vitrasert*.

Category: Antiviral (ophthalmic).

Conventional indications: Cytomegalovirus retinitis (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: detachment, retinal (seeing flashes or sparks of light, seeing floating spots before the eyes, or a veil or curtain appearing across part of vision); **hemorrhage, vitreous** (seeing floating spots before the eyes); *cataract formation; disk or nerve, optic, changes* (decreased vision or other change in vision); *hyphema* (red or bloodshot eye); *macular abnormalities; opacities, lens; pressure, intraocular, increased; uveitis* (eye pain, tearing, sensitivity of eye to light, redness of eye, or blurred vision or other change in vision); *chemosis* (swelling of the membrane covering the white part of the eye); *choroiditis; dellen, corneal; detachment or traction, vitreous* (decreased vision or other change in vision); *endophthalmitis; extrusion, pellet, from scleral wound* (eye irritation or pain, eye redness, or tearing); *folds, choroidal; glaucoma, angle closure with anterior chamber shallowing* (eye pain and blurred vision); *gliosis* (decreased vision or other change in vision); *hemorrhage, nonvitreous* (red or bloodshot eye); *hole, retinal; hypotony* (decreased vision

or other change in vision); *infection, postoperative, risk of; inflammation, severe postoperative* (eye pain, tearing, sensitivity of eye to light, redness of eye, or blurred vision or other change in vision); *keratopathy; phthisis bulbi; sclerosis; synechia; tear, retinal*.

VISION: *acuity, visual, loss of three or more lines, immediate and temporary* (decrease in vision, severe; may last approximately 2 to 4 weeks); *gliosis* (decreased vision or other change in vision).

GENERALITIES: *gliosis* (decreased vision or other change in vision); *infection, postoperative, risk of*.

Ganciclovir (Systemic)

Commercial name(s): *Cytovene; Cytovene-IV*.

Category: Antiviral (systemic).

Conventional indications: Cytomegalovirus retinitis (treatment); Cytomegalovirus disease (prophylaxis); Cytomegalovirus disease (treatment); Polyradiculopathy (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *mood or other mental changes* [intravenous and oral administration]; *nervousness* [intravenous and oral administration].

EYE: *detachment, retinal* [intravitreal administration]; *endophthalmitis, bacterial* [intravitreal administration]; *hemorrhage, subconjunctival* (decreased vision or any change in vision) [intravitreal administration]; *induration, scleral* [intravitreal administration]; *scarring, conjunctival, mild* [intravitreal administration]; *sensation, foreign body* [intravitreal administration].

STOMACH: *appetite, loss of; nausea; vomiting*.

ABDOMEN: *pain, abdominal*.

GENERALITIES: *granulocytopenia* (sore throat and fever) [intravenous and oral administration]; *thrombocytopenia* (unusual bleeding or bruising) [intravenous and oral administration]; *anemia* (unusual tiredness and weakness) [intravenous and oral administration]; *hypersensitivity* (fever; skin rash) [intravenous and oral administration]; *phlebitis* (pain at site of injection) [intravenous and oral administration]; *tremor* [intravenous and oral administration].

DIAGNOSTIC TESTS: *granulocytopenia* [intravenous and oral administration]; *thrombocytopenia* [intravenous and oral administration]; *anemia* [intravenous and oral administration].

Ganirelix (Systemic)

Commercial name(s): *Antagon*.

Category: Gonadatropin-releasing hormone antagonist.

Conventional indications: Infertility, treatment (female).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache*.

STOMACH: *nausea.*

ABDOMEN: *pain, abdominal, gastrointestinal.*

GENITALIA FEMALE: *bleeding, vaginal; death, fetal; ovarian hyperstimulation syndrome* (abdominal pain, severe; nausea and vomiting; rapid weight gain); *pain, gynecological.*

GENERALITIES: *injection site reaction* (redness, pain or swelling at injection site).

Gatifloxacin (Ophthalmic)

Commercial name(s): Zymar; Zymaxid.

Category: Antibacterial (ophthalmic).

Conventional indications: Conjunctivitis, bacterial (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *consciousness, loss of.*

HEAD: *headache.*

EYE: *conjunctivitis, papillary* (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing); **irritation, conjunctival; keratitis** (eye redness, irritation, or pain); **lacrimation, increased** (watering of eyes); *chemosis* (swelling of the membrane covering the white part of the eye); *discharge, eye; dryness; edema, eyelid* (swelling of eyelids); *hemorrhage, conjunctival* (bloody eye; redness of eye); *irritation, eye* (red, sore eyes); *pain; redness.*

VISION: *acuity, visual, reduced* (decrease in vision).

FACE: *angioedema, facial.*

MOUTH: *taste disturbance* (change in taste; bad unusual or unpleasant [after] taste).

THROAT: *angioedema, pharyngeal.*

LARYNX AND TRACHEA: *angioedema, laryngeal; obstruction, airway.*

RESPIRATION: *dyspnea; obstruction, airway.*

CHEST: *collapse, cardiovascular.*

SKIN: *itching; urticaria.*

GENERALITIES: *collapse, cardiovascular; hypersensitivity reactions, serious and occasionally fatal.*

Gefitinib (Systemic)

Commercial name(s): *Iressa.*

Category: Antineoplastic.

Conventional indications: Carcinoma, lung, non–small cell (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *conjunctivitis* (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing); *angioedema* (large, hive-like swelling on eyelids); *eyelash growth, aberrant; hemorrhage, ocular* (red or bloodshot eye; change in vision; seeing floating spots before the eyes); *ischemia, ocular* (changes in

vision; eye pain); *pain*; *sloughing*, *corneal membrane* (blurry vision; eye irritation or redness; severe stinging in the eye); *ulcer*, *corneal* (eye irritation or redness).

VISION: *amblyopia* (blurred vision, change in vision, impaired vision).

NOSE: *epistaxis* (bloody nose).

FACE: *acne* (blemishes on the skin, pimples); *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *ulcer* (irritation or soreness of mouth); *angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

STOMACH: *anorexia* (loss of appetite, weight loss); **nausea**; **vomiting**.

ABDOMEN: *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: **diarrhea**.

URINE: *hematuria* (blood in urine).

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest, wheezing).

CHEST: *lung disease*, *interstitial*, *rarely fatal* (cough; fever; shortness of breath, interstitial pneumonia, pneumonitis and alveolitis); *QT interval*, *cardiac*, *potential to inhibit the*.

EXTREMITIES: *edema*, *peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet, unusual weight gain or loss); *angioedema* (large, hive-like swelling on hands, legs, feet).

SKIN: *acne* (blemishes on the skin, pimples); **dryness**; **pruritus** (itching skin); **rash**; *rash*, *vesiculobullous* (blisters under the skin, large, hard skin blisters); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *necrosis*, *epidermal* (redness, tenderness, itching, burning, or peeling of skin; red or irritated eyes; sore throat; fever; and chills); *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: **asthenia** (lack or loss of strength); **weight loss**; *edema*, *peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet, unusual weight gain or loss); *allergic reactions* (fainting or loss of consciousness; fast or irregular breathing; swelling of eyes or eyelids; trouble in breathing, tightness in chest, and/or wheezing; skin rash; itching); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *hemorrhage*; *necrosis*, *epidermal* (redness, tenderness, itching, burning, or peeling of skin; red or irritated eyes; sore throat; fever; and chills); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); *QT interval*, *cardiac*, *potential to inhibit the*.

DIAGNOSTIC TESTS: *hematuria*; *QT interval*, *cardiac*, *potential to inhibit the*.

Gemcitabine (Systemic)

Commercial name(s): *Gemzar*.

Category: Antineoplastic.

Conventional indications: Carcinoma, breast (treatment) [Gemcitabine in combination with paclitaxel]; Carcinoma, pancreatic (treatment); Carcinoma, lung, non-small cell [in combination with cisplatin]; Carcinoma, biliary tract (treatment); Carcinoma, gallbladder (treatment); Carcinoma, bladder; Carcinoma, ovarian, epithelial (treatment); Lymphomas, Hodgkin's (treatment); Lymphomas, non-Hodgkin's (treatment); Tumors, germ cell (treatment); Tumors, germ cell, ovarian (treatment); Tumors, germ cell, testicular (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: **alopecia** (loss of hair); cerebrovascular accident (headache, sudden and severe; slurred speech or inability to speak; weakness in arm and/or leg on one side of the body, sudden and severe).

MOUTH: stomatitis (sores, ulcers, or white spots on lips and in mouth).

STOMACH: **nausea; vomiting.**

RECTUM: **constipation; diarrhea.**

URINE: **hematuria** (blood in urine); **proteinuria** (cloudy urine).

RESPIRATION: **dyspnea** (shortness of breath); bronchospasm (shortness of breath, troubled breathing, tightness in chest, and/or wheezing); pneumonitis (coughing; shortness of breath).

CHEST: arrhythmia (fast or irregular heartbeat); bronchospasm (shortness of breath, troubled breathing, tightness in chest, and/or wheezing); infarction, myocardial (pain in chest, arm, or back; pressure or squeezing in chest); edema, pulmonary (coughing; noisy, rattling, or troubled breathing); failure, heart (coughing; noisy, rattling, or troubled breathing); pneumonitis (coughing; shortness of breath); toxicity, lung, parenchymal (coughing; shortness of breath).

EXTREMITIES: **edema** (swelling of fingers, feet, or lower legs).

SLEEP: somnolence (drowsiness, severe).

FEVER: **fever.**

SKIN: **alopecia** (loss of hair); **skin rash, mild to moderate, with or without itching** (macular or finely granular maculopapular eruptions on the trunk and extremities).

GENERALITIES: **alopecia** (loss of hair); **anemia** (unusual tiredness or weakness); **flu-like syndrome** (chills; cough; fever; general feeling of illness; headache; loss of appetite; muscle pain; runny nose; sweating; trouble in sleeping; weakness); **leukopenia; neutropenia; thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); arrhythmia (fast or irregular heartbeat); hemorrhage; hypertension (high blood pressure); infarction, myocardial (pain in chest, arm, or back; pressure or squeezing in chest); irritation, pain, or redness at injection site; neutropenia, febrile, or other infection (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); paresthesia (numbness or tingling of hands or

feet); *anaphylactoid reaction* (change in facial skin color; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; skin rash, hives, and/or itching; swelling or puffiness of the face, especially the eyelids or area around the eyes); *edema, generalized; hemolytic-uremic syndrome* (black, tarry stools; blood in urine or stools; fever; increased or decreased urination; pinpoint red spots on skin; swelling of face, fingers, feet, or lower legs; unusual bleeding or bruising; unusual tiredness or weakness; yellow eyes or skin); *weakness*; suppression, bone marrow

DIAGNOSTIC TESTS: **anemia; hematuria; leukopenia; neutropenia; proteinuria; thrombocytopenia; neutropenia, febrile**; suppression, bone marrow.

Gemfibrozil (Systemic)

Commercial name(s): *Apo-Gemfibrozil; Gen-Fibro; Lopid; Novo-Gemfibrozil; Nu-Gemfibrozil.*

Category: Antihyperlipidemic

Conventional indications: Hyperlipidemia (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *cataracts, subcapsular bilateral and unilateral* (in male rats given 10 times the human dose)

STOMACH: **gas; heartburn; pain; nausea; vomiting.**

ABDOMEN: *cholelithiasis and cholecystitis, increased incidence of; cholesterol secretion into the bile, increase; gallstones* (severe stomach pain with nausea and vomiting).

RECTUM: *diarrhea.*

EXTREMITIES: *myositis* (muscle pain, unusual tiredness or weakness).

SKIN: *rash;* psoriasis, psoriasiform eruption [1].

GENERALITIES: *tiredness, unusual; anemia* (cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination); *cardiovascular disease, danger of; death; deaths from noncardiovascular causes, increased incidence of; leukopenia* (cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination); *myositis* (muscle pain, unusual tiredness or weakness).

DIAGNOSTIC TESTS: *hypolipidemia; anemia; cholelithiasis, increased incidence of; leukopenia.*

Complementary Bibliography: [1] Kim GK, Del Rosso JQ. Drug-provoked psoriasis: is it drug induced or drug aggravated? Understanding pathophysiology and clinical relevance. *J Clin Aesthet Dermatol* 2010; **3**(1): 32-38.

Gemifloxacin (Systemic)

Commercial name(s): *Factive.*

Category: Antibacterial (systemic).

Conventional indications: Chronic bronchitis, acute bacterial exacerbation of (treatment); Pneumonia, community-acquired (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; confusion; depression; hallucinations; nervousness; paranoia; restlessness; suicidal thoughts or acts; lethargy* (in rodents).

VERTIGO: *dizziness; lightheadedness; vertigo* (dizziness or lightheadedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: *headache.*

VISION: *abnormality, visual.*

FACE: *bilirubinemia* (yellow eyes or skin); *flushing* (feeling of warmth redness of the face); *hot flashes* (feeling of warmth; redness of the face).

MOUTH: *dryness; taste perversion* (change in taste; bad unusual or unpleasant [after] taste).

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

EXTERNAL THROAT: *flushing* (feeling of warmth redness of the neck); *hot flashes* (feeling of warmth; redness of the neck).

STOMACH: *nausea; anorexia* (loss of appetite; weight loss); *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); *gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *gastrointestinal disorder, non-specified; vomiting.*

ABDOMEN: *gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *gastrointestinal disorder, non-specified; pain, abdominal.*

RECTUM: *diarrhea; constipation* (difficulty having a bowel movement [stool]).

URINE: *abnormal urine.*

RESPIRATION: *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

CHEST: *flushing* (feeling of warmth redness of the upper chest); *hot flashes* (feeling of warmth; redness of the upper chest); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

BACK: *pain.*

EXTREMITIES: *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *cramps, leg; flushing* (feeling of warmth redness of the arms); *hot flashes* (feeling of warmth; redness of the arms); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness); *pain, tendon; ruptures of the tendons in the shoulder or hand, or of the Achilles tendon; tendinitis; tremor* (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet); *ataxia* (in rodents).

SLEEP: *insomnia* (sleeplessness); *somnolence* (sleepiness or unusual drowsiness).

SKIN: *rash, maculopapular or urticarial, mild to moderate; bilirubinemia* (yellow eyes or skin); *dermatitis* (blistering, crusting, irritation, itching, or reddening of skin; cracked, dry, scaly skin; swelling); *eczema* (skin rash encrusted, scaly and oozing); *flushing* (feeling of warmth redness of the face, neck, arms and occasionally, upper chest); *hot flashes* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest; sudden sweating);

photosensitivity (increased sensitivity of skin to sunlight); *pruritus* (itching skin); *urticaria* (hives or welts; itching; redness of skin; skin rash); piloerection (in rodents).

GENERALITIES: *anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *asthenia* (lack or loss of strength); *bilirubinemia* (yellow eyes or skin); *dermatitis* (blistering, crusting, irritation, itching, or reddening of skin; cracked, dry, scaly skin; swelling); *eosinophilia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *fatigue* (unusual tiredness or weakness); *granulocytopenia* (fever; chills; cough; sore throat; ulcers, sores, or white spots in mouth; shortness of breath; unusual tiredness or weakness); *flushing* (feeling of warmth redness of the face, neck, arms and occasionally, upper chest); *hot flashes* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest; sudden sweating); *hyperglycemia* (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); *hypersensitivity and/or anaphylactic reactions, serious and occasionally fatal* (cardiovascular collapse, hypotension/shock, seizure, loss of consciousness, tingling, angioedema (including tongue, laryngeal, throat, or facial edema/swelling), airway obstruction (including bronchospasm, shortness of breath and acute respiratory distress), dyspnea, urticaria, itching, and other serious skin reactions); *infection, fungal*; *leukopenia* (black, tarry stools chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness); *pain; pain, tendon; tendonitis; thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *tremor* (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet); convulsions, clonic (in rodents); death (in rats and mice); piloerection (in rodents).

DIAGNOSTIC TESTS: *abnormal urine; anemia; bilirubinemia; eosinophilia; granulocytopenia; hyperglycemia; leukopenia; thrombocytopenia.*

Gemtuzumab Ozogamicin (Systemic)

Commercial name(s): *Mylotarg.*

Category: Antineoplastic; Monoclonal antibody.

Conventional indications: Leukemia, acute myeloid (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: depression (mood or mental changes).

VERTIGO: dizziness.

HEAD: **headache**; **hemorrhage, cerebral** (blurred vision; headache sudden and severe; inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe); **hemorrhage, intracranial** (headache, sudden severe; weakness, sudden).

EYE: **herpes simplex** (burning or stinging of skin; painful cold sores or blisters on eyes).

NOSE: **epistaxis** (unexplained nosebleeds); **herpes simplex** (burning or stinging of skin; painful cold sores or blisters on nose); **rhinitis** (stuffy nose; runny nose; sneezing).

FACE: **edema, peripheral** (bloating or swelling of face); **herpes simplex** (burning or stinging of skin; painful cold sores or blisters on lips); **hyperbilirubinemia** (yellow eyes or skin).

MOUTH: **mucositis** (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth; swelling or inflammation of the mouth); **stomatitis** (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth; swelling or inflammation of the mouth).

THROAT: **pharyngitis**.

STOMACH: **anorexia** (loss of appetite; weight loss); **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset); **nausea**; **vomiting**.

ABDOMEN: **ALT and AST, abnormal levels in, and concurrent elevations in transaminases and bilirubin**; **enlargement, abdomen** (swelling of abdominal or stomach area; full or bloated feeling or pressure in the stomach); **hepatotoxicity, including hyperbilirubinemia and hepatic veno-occlusive disease** (yellow eyes or skin; upper abdominal pain; rapid weight gain); **pain, abdominal**.

RECTUM: **constipation**; **diarrhea** (increase in bowel movements; loose stools; soft stools); **mucositis or stomatitis** (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth; swelling or inflammation of the mouth).

KIDNEYS: **failure, renal** (lower back or side pain; decreased frequency or amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting, unusual tiredness, or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure).

URINE: **hematuria** (blood in urine; lower back pain; pain or burning while urinating).

GENITALIA MALE: **herpes simplex** (burning or stinging of skin; painful cold sores or blisters on genitals).

GENITALIA FEMALE: **hemorrhage, vaginal** (heavy nonmenstrual vaginal bleeding); **herpes simplex** (burning or stinging of skin; painful cold sores or blisters on genitals).

RESPIRATION: **breath sounds, changes in**; **dyspnea** (troubled breathing); **hypoxia**; **pneumonia** (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); **rales**; **rhonchi**.

COUGH: **cough increased**.

CHEST: **pneumonia** (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); **rales**; **rhonchi**; **tachycardia** (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations).

BACK: **pain, back**.

EXTREMITIES: **arthralgia** (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); **edema, peripheral** (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss).

SLEEP: **insomnia** (sleeplessness; trouble sleeping; unable to sleep).

CHILL: **chills**.

FEVER: **fever, neutropenic or not.**

SKIN: **herpes simplex** (burning or stinging of skin; painful cold sores or blisters on lips, nose, eyes, or genitals); **hyperbilirubinemia** (yellow eyes or skin); **petechiae** (small red or purple spots on skin); **rash nonspecific; reactions, local** (dry, red, hot, or irritated skin).

GENERALITIES: **anemia** (pale skin; troubled breathing, exertional; unusual bleeding or bruising; unusual tiredness or weakness); **arthralgia** (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); **asthenia** (lack or loss of strength); **bleeding events; coagulation, intravascular, disseminated** (blood in stools; blood in urine; bluish color of fingernails, lips, skin, palms, or nail beds; bruising; excessive sweating; persistent bleeding or oozing from puncture sites, mouth, or nose); **ecchymosis** (bruising; large, flat, blue or purplish patches in the skin); **edema, peripheral** (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); **herpes simplex** (burning or stinging of skin; painful cold sores or blisters on lips, nose, eyes, or genitals); **hyperbilirubinemia** (yellow eyes or skin); **hyperglycemia** (blurred vision dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; loss of consciousness; nausea; stomachache; sweating; troubled breathing; vomiting); **hypertension** (blurred vision; dizziness; severe or continuing dull nervousness; headache; pounding in the ears; slow or fast heartbeat); **hypokalemia** (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips ; shortness of breath; unusual tiredness or weakness); **hypomagnesemia** (muscle trembling or twitching); **hypotension** (dizziness; fainting); **hypoxia; infections, including sepsis** (chills; confusion; delirium; dizziness ; light-headedness ; fainting; fast heartbeat; fever; rapid, shallow breathing); **mucositis** (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth; swelling or inflammation of the mouth); **myelosuppression** (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin ; unusual bleeding or bruising); **pain; tachycardia** (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); **thrombocytopenia** (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); **tumor lysis syndrome** (joint pain; lower back or side pain; stomach pain; swelling of feet or lower legs); antibody formation; immune response.

DIAGNOSTIC TESTS: **ALT and AST, abnormal levels in, and concurrent elevations in transaminases and bilirubin; anemia; hematuria; hyperbilirubinemia; hyperglycemia; hypokalemia; hypomagnesemia; hypoxia; lactic dehydrogenase increased; myelosuppression; thrombocytopenia.**

Gentamicin (Ophthalmic)

Commercial name(s): *Alcomycin; Garamycin; Genoptic Liquifilm; Genoptic SOP; Gentacidin; Gentafair; Gentak; Ocu-Mycin; Spectro-Genta.*

Category: Antibacterial (ophthalmic).

Conventional indications: Blepharitis, bacterial (treatment); Blepharoconjunctivitis (treatment); Conjunctivitis, bacterial (treatment); Corneal ulcers (treatment); Dacryocystitis (treatment); Episcleritis (treatment); Keratitis, bacterial (treatment); Keratoconjunctivitis, bacterial (treatment); Meibomianitis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *hallucinations* (seeing, hearing, or feeling things that are not there).

EYE: *allergic reaction or hypersensitivity* (itching, redness, swelling, or other sign of irritation not present before therapy); *burning; conjunctivitis* (redness of eye, eyelid, or inner lining of eyelid); *stinging; ulcers, corneal, bacterial or fungal* (blurred vision, eye pain, sensitivity to light, and/or tearing).

VISION: *blurred vision* [ophthalmic ointment dosage form].

GENERALITIES: *thrombocytopenia* (black, tarry stools; blood in urine or stools; unusual bleeding or bruising).

DIAGNOSTIC TESTS: *thrombocytopenia.*

Gentamicin (Otic)

Commercial name(s): *Garamycin Otic Solution.*

Category: Antibacterial (otic).

Conventional indications: Mastoidectomy cavity infections (treatment); Otitis media, chronic suppurative (treatment); Otitis media, subacute purulent (treatment); Otitis, external (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *vertigo.*

EAR: *burning; hypersensitivity* (itching, redness, swelling, or other sign of irritation not present before therapy); *stinging; vestibular damage.*

HEARING: *loss, hearing, impending; tinnitus.*

KIDNEYS: *damage, renal, reversible.*

Gentamicin (Topical)

Commercial name(s): *G-Myticin; Garamycin; Gentamar.*

Category: Antibacterial (topical).

Conventional indications: Folliculitis (treatment); Furunculosis (treatment); Paronychia (treatment); Skin infections, bacterial, other minor (treatment); Skin infections, bacterial, minor (prophylaxis); Ulcer, dermal (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: hypersensitivity (itching, redness, swelling, or other sign of irritation not present before therapy).

Gentian Violet (Topical)

Commercial name(s): Adergon; Aizen Crystal Violet; Aizen Crystal Violet Extra Pure; Aniline Violet; Aniline Violet pyoktanine; Atmonil; Avermin; Axuris; Badil; Basic Violet 3; Basic Violet BN; Basic Violet-3; Bismuth Violet; Brilliant Violet 5B; C.I. Basic Violet 3; Calcozine Violet 6BN; Calcozine Violet C; Crystal Violet 10B; Crystal Violet 5BO; Crystal Violet 6B; Crystal Violet 6BO; Crystal Violet AO; Crystal Violet AON; Crystal Violet base; Crystal Violet BP; Crystal Violet BPC; Crystal Violet chloride; Crystal Violet chloride salt; Crystal Violet Extra Pure; Crystal Violet Extra Pure APN; Crystal Violet Extra Pure APNX; Crystal Violet FN; Crystal Violet for microscopy; Crystal Violet HL2; Crystal Violet O; Crystal Violet Pure DSC; Crystal Violet Pure DSC Brilliant; Crystal Violet SS; Crystal Violet Technical; Crystal Violet USP; Genapax; Gentsal; Gentian Violet GR; Gentiaverm; Genticid; Gentioletten; Gention Violet Alcoholic Staining Solution; GV-Eleven; Gvs; Hecto Violet R; Hectograph Violet SR; Hexamethyl Violet; Hexamethylpararosaniline chloride; Hidaco Brilliant Crystal Violet; Hidaco crystal Violet; Meroxyl-Wander; Meroxylan-Wander; Methyl violet; Methyl Violet 10B; Methyl Violet 10BD; Methyl Violet 10BK; Methyl Violet 10BN; Methyl Violet 10BNS; Methyl Violet 10BO; Methyl Violet 5BNO; Methyl Violet 5BO; Methyl Violet 6B; Methylrosaniline chloride; Methylrosanilinium chloride; Mitsui Crystal Violet; Oxiuran; Oxycolor; Oxyozyl; Paper Blue R; Plastoresin Violet 5BO; Pyoktanin; Vermicid; Vianin; Viocid; Violet 5BO; Violet 6BN; Violet CP; Violet XXIII.

Category: Antifungal (topical).

Conventional indications: Fungal infections inside the mouth (thrush) and of the skin (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: irritation not present before therapy.

Gentian Violet (Vaginal)

Commercial name(s): Adergon; Aizen Crystal Violet; Aizen Crystal Violet Extra Pure; Aniline Violet; Aniline Violet pyoktanine; Atmonil; Avermin; Axuris; Badil; Basic Violet 3; Basic Violet BN; Basic Violet-3; Bismuth Violet; Brilliant Violet 5B; C.I. Basic Violet 3; Calcozine Violet 6BN; Calcozine Violet C; Crystal Violet 10B; Crystal Violet 5BO; Crystal Violet 6B; Crystal Violet 6BO; Crystal Violet AO; Crystal Violet AON; Crystal Violet base; Crystal Violet BP; Crystal Violet BPC; Crystal Violet chloride; Crystal Violet chloride salt; Crystal Violet Extra Pure; Crystal Violet Extra Pure APN; Crystal Violet Extra Pure APNX; Crystal Violet FN; Crystal Violet for microscopy; Crystal Violet HL2; Crystal Violet O; Crystal Violet Pure DSC; Crystal Violet Pure DSC Brilliant; Crystal Violet SS; Crystal Violet Technical; Crystal Violet USP; Genapax; Gentsal; Gentian Violet GR;

Gentiaeverm; Genticid; Gentioletten; Gention Violet Alcoholic Staining Solution; GV-Eleven; Gvs; Hecto Violet R; Hectograph Violet SR; Hexamethyl Violet; Hexamethylpararosaniline chloride; Hidaco Brilliant Crystal Violet; Hidaco crystal Violet; Meroxyl-Wander; Meroxylan-Wander; Methyl violet; Methyl Violet 10B; Methyl Violet 10BD; Methyl Violet 10BK; Methyl Violet 10BN; Methyl Violet 10BNS; Methyl Violet 10BO; Methyl Violet 5BNO; Methyl Violet 5BO; Methyl Violet 6B; Methylrosaniline chloride; Methylrosanilinium chloride; Mitsui Crystal Violet; Oxiuran; Oxycolor; Oxyozyl; Paper Blue R; Plastoresin Violet 5BO; Pyoktanin; Vermicid; Vianin; Viocid; Violet 5BO; Violet 6BN; Violet CP; Violet XXIII.

Category: Antifungal (vaginal).

Conventional indications: Candidiasis, vulvovaginal (treatment).

Primary Actions or Pathogenetic Symptoms

GENITALIA FEMALE: burning, itching, pain, or other sign of irritation, vaginal not present before therapy.

Glatiramer Acetate (Systemic)

Commercial name(s): Copaxone.

Category: Multiple sclerosis (MS) therapy agent.

Conventional indications: Multiple sclerosis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: anxiety; agitation; confusion.

VERTIGO: syncope (fainting); vertigo (sensation of motion, usually whirling, either of oneself or of one's surroundings).

HEAD: migraine.

EYE: nystagmus (continuous, uncontrolled back-and-forth and/or rolling eye movements).

VISION: problems in vision.

EAR: pain.

NOSE: rhinitis (runny nose).

FACE: edema, facial (swelling or puffiness of face).

MOUTH: moniliasis, oral (irritation of mouth and tongue [thrush]); speech problems.

THROAT: constriction of the throat.

EXTERNAL THROAT: pain, neck.

STOMACH: nausea; vomiting; anorexia (loss of appetite).

RECTUM: diarrhea.

BLADDER: urgency, urinary (strong urge to urinate).

URINE: hematuria (blood in urine).

GENITALIA MALE: impotence (decreased sexual ability).

GENITALIA FEMALE: moniliasis, vaginal (vaginal yeast infection); dysmenorrhea or other menstrual changes; Papanicolaou test, suspicious.

LARYNX AND TRACHEA: laryngismus (spasm of throat).

RESPIRATION: **dyspnea** (troubled breathing); *bronchitis* (tightness in chest or wheezing); *hyperventilation* (fast breathing).

CHEST: **pain, chest; palpitations** (irregular or pounding heartbeat); *bronchitis* (tightness in chest or wheezing); *tachycardia* (fast or racing heartbeat).

BACK: *pain*.

EXTREMITIES: **arthralgia** (joint pain); **hypertonia** (excessive muscle tone); *edema, peripheral* (swelling of fingers, arms, feet, or legs).

CHILL: *chills*.

PERSPIRATION: **sweating, increased**.

SKIN: *nodules* (small lumps under the skin); *rash; urticaria* (hives); *flushing*.

GENERALITIES: **arthralgia** (joint pain); **asthenia** (unusual tiredness or weakness); **hemorrhage at injection-site** (bleeding); **hypertonia** (excessive muscle tone); **induration at injection-site** (hard lump); **inflammation at injection-site; lymphadenopathy** (swollen lymph glands); **pain at injection-site; palpitations** (irregular or pounding heartbeat); **pruritus at injection site** (itching); **redness at injection site; tremor** (trembling); **urticaria at injection site** (hives or welts); **vasodilatation** (flushing); *ecchymosis* (purple spots under the skin); *edema* (bloating or swelling); *flu-like syndrome* (chills; fever; muscle aches); *infection; pain; weight gain; hypertension* (high blood pressure); *tachycardia* (fast or racing heartbeat).

DIAGNOSTIC TESTS: *hematuria; Papanicolaou test, suspicious*.

Glimepiride (Systemic)

Commercial name(s): *Amaryl*.

Category: Antidiabetic agent.

Conventional indications: Diabetes, type 2 (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

VISION: *blurred vision and/or changes in accommodation* (difficulty in focusing eyes).

STOMACH: *nausea; pain, gastrointestinal; vomiting*.

ABDOMEN: *pain, gastrointestinal*.

RECTUM: *diarrhea*.

SKIN: *allergic skin reactions* (erythema; morbilliform or maculopapular eruptions; pruritus; urticaria).

GENERALITIES: **hypoglycemia** (anxiety; behavior change similar to drunkenness; blurred vision; cold sweats; coma; confusion; cool pale skin; difficulty in concentrating; drowsiness; excessive hunger; fast heartbeat; headache; nausea; nervousness; nightmares; restless sleep; seizures; shakiness; slurred speech; unusual tiredness or weakness); *tiredness or weakness, unusual; death, cardiovascular, increased; hyponatremia* (depression; dizziness; headache; lethargy; nausea; swelling or puffiness of face, ankles, or hands with occasional progression to seizures, coma, or stupor).

DIAGNOSTIC TESTS: **hypoglycemia; hyponatremia**.

Glipizide and Metformin (Systemic)

Commercial name(s): *Metaglip.*

Category: Antidiabetic agent.

Conventional indications: Diabetes, type 2 (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

STOMACH: nausea; **pain, abdominal** (stomach pain); **vomiting.**

ABDOMEN: **pain, abdominal** (stomach pain); *distress, abdominal, non-specific.*

RECTUM: diarrhea.

BLADDER: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

RESPIRATION: **infection, upper respiratory** (cough; fever; sneezing; sore throat); *distress, respiratory.*

CHEST: *bradyarrhythmias, resistant.*

EXTREMITIES: **pain, musculoskeletal** (muscle or bone pain); *myalgia.*

SLEEP: *somnolence, increasing.*

FEVER: *hypothermia.*

GENERALITIES: *hypoglycemia* (anxiety; blurred vision; chills; cold sweats; coma; confusion; cool pale skin; depression; dizziness; fast heartbeat; headache; increased hunger; nausea; nervousness; nightmares; seizures; shakiness; slurred speech; unusual tiredness or weakness); **infection, upper respiratory** (cough; fever; sneezing; sore throat); **pain, musculoskeletal** (muscle or bone pain); *hypertension* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); *acidosis, lactic, possibly fatal* (abdominal discomfort; decreased appetite; diarrhea; fast, shallow breathing; general feeling of discomfort; muscle pain or cramping; nausea; shortness of breath; sleepiness; unusual tiredness or weakness; elevated blood lactate levels [> 5 mmol/L], decreased blood pH, electrolyte disturbances with an increased anion gap, and an increased lactate/pyruvate ratio); *anemia, megaloblastic* (fainting spells; irregular heartbeat; unusual tiredness weakness); *bradyarrhythmias, resistant; death, cardiovascular, increased; hypotension* (rebound effect?); *hypothermia; malaise; myalgia.*

DIAGNOSTIC TESTS: *hypoglycemia; acidosis, lactic, possibly fatal; anemia, megaloblastic.*

Glucagon (Systemic)

Commercial name(s): *Glucagon Diagnostic Kit; Glucagon Emergency Kit; Glucagon Emergency Kit for Low Blood Sugar.*

Category: Antihypoglycemic; Diagnostic aid adjunct (antispasmodic); Antispasmodic; Antidote (to beta-adrenergic blocking agents; to calcium channel blocking agents).

Conventional indications: Hypoglycemia (treatment); Radiography, gastrointestinal, adjunct; Abdominal imaging, digital angiographic, adjunct; Abdominal imaging, computed tomographic (CT), adjunct; Abdominal imaging, magnetic resonance, adjunct; Pelvic imaging, magnetic resonance, adjunct; Bleeding, gastrointestinal (diagnosis adjunct); Hysterosalpingography, adjunct; Toxicity, beta-adrenergic blocking agent (treatment); Toxicity, calcium channel blocking agent (treatment); Esophageal obstruction, foreign body (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: nausea; vomiting; hypotonicity, gastric.

RECTUM: diarrhea.

CHEST: heartbeat, fast.

GENERALITIES: hyperglycemia; allergic reaction (dizziness; lightheadedness; skin rash; trouble in breathing); heartbeat, fast; hypertension; hypokalemic syndrome (severe weakness of extremities and trunk; loss of appetite; nausea; vomiting; irregular heartbeat; muscle cramps or pain).

DIAGNOSTIC TESTS: hyperglycemia.

Glutamine (Systemic)

Commercial name(s): NutreStore.

Category: Nutritional supplement (amino acid).

Conventional indications: Bowel syndrome, short (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: depression (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping).

VERTIGO: dizziness.

HEAD: headache.

EAR: ear symptoms.

HEARING: hearing symptoms.

NOSE: rhinitis (stuffy nose; runny nose; sneezing).

FACE: edema, facial (swelling of face).

MOUTH: dryness.

THROAT: pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: fistula, gastrointestinal; nausea; pain, abdominal (stomach pain); thirst; ulcer, gastric (loss of appetite; nausea; stomach bloating, burning, cramping, or pain; vomiting; weight loss); vomiting.

ABDOMEN: Crohn's disease aggravated (diarrhea; fever; rectal bleeding; stomach pain; weight loss) (rebound effect?); enlargement, abdomen (swelling of abdominal or stomach

area; full or bloated feeling; pressure in the stomach); fistula, gastrointestinal; flatulence (bloated full feeling; excess air or gas in stomach or intestines; passing gas); hepatic function, abnormal (abdominal or stomach pain; chills; light-colored stools; dark urine; diarrhea; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); pancreatitis (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); pain, abdominal (stomach pain).

RECTUM: tenesmus (frequent urge to defecate; straining while passing stool); constipation (difficulty having a bowel movement (stool)); hemorrhoids (bleeding after defecation; uncomfortable swelling around anus).

KIDNEYS: calculus, renal (blood in urine; difficult urination; pain in lower back; pain or burning while urinating; sudden decrease in amount of urine); pyelonephritis (chills; fever; frequent or painful urination; headache; stomach pain).

GENITALIA FEMALE: vaginitis, fungal (change in the color, amount, or odor of vaginal discharge).

LARYNX AND TRACHEA: laryngitis (cough; dryness or soreness of throat; hoarseness; trouble in swallowing; voice changes).

CHEST: pain, breast, female; pain, chest.

BACK: pain.

EXTREMITIES: arthralgia (pain in joints, muscle pain or stiffness difficulty in moving); myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); vascular disorder (changes in skin color; cold hands and feet; pain, redness, or swelling in arm or leg).

NAILS: disorder, nail (discoloration of fingernails or toenails).

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep).

CHILL: rigors (feeling unusually cold shivering).

FEVER: fever.

SKIN: pruritis (itching skin); rash.

GENERALITIES: infection (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); allergic reaction (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); arthralgia (pain in joints, muscle pain or stiffness difficulty in moving); calculus, renal; Crohn's disease aggravated (diarrhea; fever; rectal bleeding; stomach pain; weight loss) (rebound effect?); dehydration (confusion; decreased urination; dizziness; dry mouth; fainting; increase in heart rate; lightheadedness; rapid breathing; sunken eyes; thirst; unusual tiredness or weakness; wrinkled skin); fatigue (unusual tiredness or weakness); flu-like disorder (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); hypoesthesia (abnormal or decreased touch sensation); infection, bacterial (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); infection, viral (chills; cough or hoarseness; fever; cold flu-like symptoms); injection site reaction (bleeding, blistering, burning, coldness, discoloration of

skin, feeling of pressure, hives, infection, inflammation, itching, lumps, numbness, pain, rash, redness, scarring, soreness, stinging, swelling, tenderness, tingling, ulceration, or warmth at site); myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); pain; pain, injection site; pancreatitis (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); sepsis (chills; confusion; dizziness; lightheadedness; fainting; fast heartbeat; fever; rapid, shallow breathing); vascular disorder (changes in skin color; cold hands and feet; pain, redness, or swelling in arm or leg).

Glyburide and Metformin (Systemic)

Commercial name(s): *Glucovance*.

Category: Antidiabetic agent.

Conventional indications: Diabetes, type 2 (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

STOMACH: nausea; pain, abdominal (stomach or abdomen pain); vomiting.

ABDOMEN: pain, abdominal (stomach or abdomen pain).

RECTUM: diarrhea (increase in bowel movements; loose stools; soft stools).

RESPIRATION: infection, upper respiratory (cough; fever; sneezing; sore throat).

GENERALITIES: hypoglycemia (anxiety; behavior change similar to drunkenness; blurred vision; cold sweats; coma; confusion; cool, pale skin; difficulty in concentrating; drowsiness; excessive hunger; fast heartbeat; headache, continuing; nausea; nervousness; nightmares; restless sleep; seizures; shakiness; slurred speech; unusual tiredness or weakness); **infection, upper respiratory** (cough; fever; sneezing; sore throat); acidosis, lactic (abdominal discomfort; decreased appetite; diarrhea; fast, shallow breathing; general feeling of discomfort; muscle pain or cramping; unusual sleepiness; unusual tiredness or weakness; increased anion gap, electrolyte disturbances, blood lactic acid concentration greater than 5 millimoles/L, increased lactic acid/pyruvate ratio, plasma metformin concentration greater than 5 mcg/mL, and decreased blood pH).

DIAGNOSTIC TESTS: hypoglycemia.

Glycerin (Systemic)

Commercial name(s): *Glyrol*; *Osmoglyn*.

Category: Diuretic; Antiglaucoma agent (systemic).

Conventional indications: Glaucoma (treatment); Edema, cerebral (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: confusion; coma, hyperosmolar nonketotic, possibly fatal.

VERTIGO: dizziness.

HEAD: headache.

EYE: *hypotension*.

MOUTH: *dryness*.

STOMACH: nausea; vomiting; *thirst, increased*.

RECTUM: *diarrhea*.

BLADDER: *urination, frequent*.

URINE: *copious (increased) urine*.

CHEST: *arrhythmias* (irregular heartbeat).

GENERALITIES: *arrhythmias* (irregular heartbeat); *coma, hyperosmolar nonketotic, possibly fatal; dehydration, severe and possibly fatal*.

Gold Compounds (Systemic)

Commercial name(s): *Myochrysine; Ridaura; Solganal*.

Category: Antirheumatic (disease-modifying).

Conventional indications: Arthritis, rheumatoid (treatment); Arthritis, juvenile (treatment) [Auranofin]; Arthritis, psoriatic (treatment); Felty's syndrome (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; hallucinations*.

HEAD: *hair loss without symptoms of exfoliative dermatitis; encephalitis*.

EYE: **conjunctivitis** (redness, itching, or tearing of eyes; feeling of something in the eye); *angioedema without other signs and symptoms of nitritoid or allergic reaction* (large hive-like swellings on eyelids); *iritis* (eye pain, tearing, decreased vision); *ulcers, corneal*.

FACE: *angioedema without other signs and symptoms of nitritoid or allergic reaction* (large hive-like swellings on face, lips).

MOUTH: **gingivitis** (redness, soreness, swelling, or bleeding of gums); **glossitis** (irritation or soreness of tongue); **stomatitis** (ulcers, sores, or white spots in mouth or throat); **taste, metallic**; *taste sense, loss of or other change in; angioedema without other signs and symptoms of nitritoid or allergic reaction* (large hive-like swellings on mouth, and/or tongue).

THROAT: **stomatitis** (ulcers, sores, or white spots in mouth or throat); *difficulty in swallowing without other symptoms of nitritoid or allergic reaction; pharyngitis* (irritation of nose, throat, and/or upper chest area, possibly with hoarseness and/or coughing).

STOMACH: **appetite, decrease or loss of; cramps, mild to moderate; indigestion, mild to moderate; nausea with or without vomiting, mild to moderate; pain, mild to moderate; bleeding, gastrointestinal, without other signs and symptoms of ulcerative enterocolitis** (bloody or black tarry stools; occult blood in the stool has also been reported with auranofin).

ABDOMEN: **bloated feeling; cramps, abdominal, mild to moderate; gas; pain, abdominal, mild to moderate; bleeding, gastrointestinal, without other signs and symptoms of ulcerative enterocolitis** (bloody or black tarry stools; occult blood in the stool has also been reported with auranofin); *enterocolitis, ulcerative* (abdominal pain, cramping, or burning, severe; bloody or black tarry stools; vomiting of blood or material that looks

like coffee grounds; nausea, heartburn, and/or indigestion, severe and continuing); *hepatitis, cholestatic or toxic; hepatotoxicity* (dark urine, pale stools, and/or yellow eyes or skin).

RECTUM: *diarrhea; constipation* (rebound effect?); *bleeding, gastrointestinal, without other signs and symptoms of ulcerative enterocolitis* (bloody or black tarry stools; occult blood in the stool has also been reported with auranofin).

STOOL: *loose stools.*

KIDNEYS: *glomerulitis* (pain in lower back or abdomen; bloody urine; difficulty in breathing; decreased urination; swelling of face and/or legs).

URINE: *proteinuria without other signs or symptoms of renal toxicity* (cloudy urine); *hematuria without other signs or symptoms of renal toxicity* (bloody urine).

GENITALIA FEMALE: *vaginitis* (irritation of vagina).

LARYNX AND TRACHEA: *tracheitis* (irritation of nose, throat, and/or upper chest area, possibly with hoarseness and/or coughing).

RESPIRATION: *bronchitis [gold bronchitis]; inflammation, upper respiratory tract* (irritation of nose, throat, and/or upper chest area, possibly with hoarseness and/or coughing).

CHEST: *bronchitis [gold bronchitis]; fibrosis, pulmonary; pneumonitis, interstitial.*

EXTREMITIES: *pain, joint; neuropathy, peripheral* (numbness, tingling, pain, or weakness in hands or feet).

FEVER: *fever.*

SKIN: *itching; rash; reddened skin; dermatitis, allergic* (hives); *hair loss without symptoms of exfoliative dermatitis; dermatitis, exfoliative* (fever with or without chills; red, thickened, or scaly skin; swollen and/or painful glands; unusual bruising; may lead to alopecia and shedding of nails); psoriasis, psoriasiform eruption [1].

GENERALITIES: *eosinophilia; hair loss without symptoms of exfoliative dermatitis; leukopenia [neutropenia]* (usually asymptomatic; rarely, fever or chills, cough or hoarseness, lower back or side pain, painful or difficult urination); *pain, joint; thrombocytopenia with or without purpura* (usually asymptomatic; rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *agranulocytosis* (sore throat and fever with or without chills; sores, ulcers, or white spots on lips or in mouth); *anaphylactic shock* (changes in facial skin color; skin rash, hives, and/or itching; fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sudden, severe decrease in blood pressure and collapse); *anemia* (unusual tiredness or weakness); *anemia, aplastic [anemia, hypoplastic; pancytopenia; red cell aplasia]* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sores, ulcers, or white spots on lips or in mouth; swollen and/or painful glands; unusual bleeding or bruising; unusual tiredness or weakness); *convulsions; encephalitis; Guillain-Barre syndrome* (tingling, numbness, and weakness in arms, trunk, or face; problems with muscle coordination); *hepatitis, cholestatic or toxic; hepatotoxicity* (dark urine, pale stools, and/or yellow eyes or skin); *nephrotic syndrome* (swelling of face, fingers, ankles, lower legs, and/or feet; cloudy urine); *neuropathy, peripheral* (numbness, tingling, pain, or weakness in hands or feet); *nitritoid or allergic reaction, mild to severe* (dizziness, feeling faint, flushing or redness of face, increased sweating, nausea with or without vomiting, weakness; difficulty in breathing or

swallowing; fainting; slow heartbeat; large hive-like swellings on face, eyelids, mouth, lips, and/or tongue; thickening of tongue).

DIAGNOSTIC TESTS: **proteinuria**; *eosinophilia*; *hematuria*; *leukopenia* [*neutropenia*]; *thrombocytopenia with or without purpura*; *agranulocytosis*; *anemia*; *anemia, aplastic* [*anemia, hypoplastic*; *pancytopenia*; *red cell aplasia*]; *electroencephalographic (EEG) abnormalities*.

Complementary Bibliography: [1] Kim GK, Del Rosso JQ. Drug-provoked psoriasis: is it drug induced or drug aggravated? Understanding pathophysiology and clinical relevance. *J Clin Aesthet Dermatol* 2010; **3**(1): 32-38.

Gonadorelin (Systemic)

Commercial name(s): *Factrel*; *Lutrepulse*; *Relisorm*.

Category: Gonadotropin-releasing hormone; Diagnostic aid (hypothalamic-pituitary-gonadal axis function); Infertility therapy agent.

Conventional indications: Hypogonadism (diagnosis) [Gonadorelin as a single dose]; Amenorrhea, primary hypothalamic (treatment), Infertility, female, due to primary hypothalamic hypogonadism (treatment), Infertility, male, due to primary hypothalamic hypogonadism (treatment) or Puberty, delayed (treatment) [Gonadorelin acetate administered through an infusion pump set for pulsatile or intermittent dosing].

Primary Actions or Pathogenetic Symptoms

VERTIGO: *lightheadedness* (for single dose injection).

HEAD: *headache* (for single dose injection).

STOMACH: *discomfort* (for single dose injection); *nausea* (for single dose injection).

ABDOMEN: *discomfort, abdominal* (for single dose injection).

SKIN: *flushing, transient* (for single dose injection); *rash, generalized or local* (following multiple doses).

GENERALITIES: *anaphylaxis, generalized* (difficulty in breathing; hardening of skin at injection site; hives; persistent flushing; rapid heartbeat) (following multiple doses); *hematoma, local* (itching, pain, redness, or swelling at place of injection) (following single or multiple doses); *infection* (following single or multiple doses); *phlebitis, mild* (following single or multiple doses).

Goserelin (Systemic)

Commercial name(s): *Zoladex*; *Zoladex 3-Month*; *Zoladex LA*.

Category: Gonadotropin-releasing hormone analog; Antiendometriotic agent; Antineoplastic; Gonadotropin inhibitor.

Conventional indications: Carcinoma, breast (treatment); Carcinoma, prostatic (treatment); Endometrial thinning; Endometriosis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *personality or behavioral changes in females* (anxiety; mental depression; mood changes; nervousness).

VERTIGO: *dizziness; syncope* (fainting).

HEAD: *headache*.

VISION: *blurred vision*.

STOMACH: *nausea; vomiting*.

RECTUM: *constipation in males*.

PROSTATE GLAND: *prostatic carcinoma disease flare, transient* (with a transient, sometimes severe, increase in bone or tumor pain; difficult urination; spinal compression).

GENITALIA MALE: *impotence* (inability to have or keep an erection); *libido decreased* (decreased interest in sexual intercourse); *size of testicles, decreased*.

GENITALIA FEMALE: *amenorrhea* (stopping of menstrual periods); **spotting** (light, irregular vaginal bleeding); *endometriotic disease flare, transient* (pelvic pain, dysmenorrhea, dyspareunia, pelvic tenderness, induration); *libido decreased* (decreased interest in sexual intercourse); *vaginitis* (burning, dryness, or itching of vagina).

CHEST: *arrhythmias or palpitations, cardiac* (fast or irregular heartbeat); *swelling of breasts; tenderness of breasts, increased; angina in males* (pain in chest); *embolism, pulmonary, in males* (sudden shortness of breath); *infarction, myocardial, in males* (pains in chest).

BACK: *vertebral trabecular bone density, risk of increased loss of* (during treatment for endometriosis or breast cancer).

EXTREMITIES: *edema* (swelling of feet or lower legs); *bone density decreased* (in males who have had an orchiectomy or who have been treated with a gonadotropin-releasing hormone analog (GnRHa)); *pain, bone, muscle, or joint, continuing*.

SLEEP: *trouble in sleeping*.

SKIN: *hot flashes* (sudden sweating and feelings of warmth).

GENERALITIES: *arrhythmias or palpitations, cardiac* (fast or irregular heartbeat); *injection site reaction* (burning, itching, redness, or swelling at place of injection); *prostatic carcinoma disease flare, transient* (with a transient, sometimes severe, increase in bone or tumor pain; difficult urination; spinal compression); *weight gain; anaphylaxis* (changes in facial skin color; fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; skin rash, hives, and/or itching; sudden, severe decrease in blood pressure and collapse); *androgenic effects in females* (deepening of voice; increased hair growth); *hypogonadism; infarction, myocardial, in males* (pains in chest); *pain, bone, muscle, or joint, continuing; paresthesias* (numbness or tingling of hands or feet); *thrombophlebitis in males* (pains in groin or legs, especially calves of legs).

Granisetron (Systemic)

Commercial name(s): Kytril.

Category: Antiemetic.

Conventional indications: Nausea and vomiting, cancer chemotherapy-induced (prophylaxis); Nausea and vomiting, cancer radiotherapy-induced (prophylaxis); Nausea and vomiting, cancer radiotherapy-induced (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation*; *anxiety* (fear; nervousness).

VERTIGO: *dizziness*; *fainting*.

HEAD: headache.

MOUTH: *taste, unusual*.

STOMACH: nausea; vomiting; *dyspepsia* (heartburn; indigestion; sour stomach).

ABDOMEN: pain, abdominal.

RECTUM: constipation; diarrhea.

CHEST: *angina pectoris* (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea); *arrhythmias* (irregular heartbeat); *fibrillation, atrial* (fast or irregular heartbeat; dizziness; fainting); *pain, chest*.

SLEEP: *drowsiness*; *insomnia* (trouble in sleeping); *somnolence* (sleepiness or unusual drowsiness) (rebound effect?).

FEVER: *fever*.

GENERALITIES: *asthenia* (lack or loss of strength); **tiredness or weakness, unusual**; *hypertension* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); *arrhythmias* (irregular heartbeat); *fibrillation, atrial* (fast or irregular heartbeat; dizziness; fainting); *hypersensitivity reaction* (shortness of breath; skin rash, hives, and itching); *hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *fibrillation, atrial*.

Griseofulvin (Systemic)

Commercial name(s): *Fulvicin P/G*; *Fulvicin U/F*; *Fulvicin-U/F*; *Grifulvin V*; *Gris-PEG*; *Grisactin*; *Grisactin Ultra*.

Category: Antifungal (systemic).

Conventional indications: *Tinea barbae* (treatment); *Tinea capitis* (treatment); *Tinea corporis* (treatment); *Tinea cruris* (treatment); *Tinea pedis* (treatment); *Tinea unguium* (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion*.

VERTIGO: *dizziness*.

HEAD: headache.

MOUTH: *thrush, oral* (soreness or irritation of mouth or tongue).

STOMACH: *nausea*; *pain*; *vomiting*.

RECTUM: *diarrhea*.

EXTREMITIES: *neuritis, peripheral* (numbness, tingling, pain, or weakness in hands or feet).

SLEEP: *insomnia* (trouble in sleeping).

SKIN: *hypersensitivity* (skin rash, hives, or itching); *photosensitivity* (increased sensitivity of skin to sunlight).

GENERALITIES: *tiredness, unusual; granulocytopenia* (sore throat and fever); *hepatitis* (yellow eyes or skin); *leukopenia* (sore throat and fever); *neuritis, peripheral* (numbness, tingling, pain, or weakness in hands or feet).

DIAGNOSTIC TESTS: *granulocytopenia; leukopenia*.

Growth Hormone (Systemic)

Commercial name(s): *Genotropin; Genotropin Miniquick; Humatrope; Norditropin; Norditropin NordiFlex; Norditropin cartridges; Nutropin; Nutropin AQ; Protropin; Saizen; Serostim*.

Category: Growth hormone.

Conventional indications: Growth hormone deficiency-associated (treatment) [Somatrem and recombinant somatropin]; Chronic renal insufficiency-associated (treatment) [Recombinant somatropin]; Prader-Willi syndrome (PWS)-associated (treatment) [Somatropin]; Turner's syndrome-associated (treatment) [Recombinant somatropin]; Cachexia, acquired immunodeficiency syndrome (AIDS)-associated (treatment) or Weight loss, AIDS-associated (treatment) [Recombinant somatropin].

Primary Actions or Pathogenetic Symptoms

MIND: *depression* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping).

VERTIGO: *dizziness*.

HEAD: *headache; hypertension, intracranial, in children* (changes in vision; headache; nausea and vomiting; papilledema).

EAR: *otitis media or other ear disorders* (in patients with Turner's syndrome).

NOSE: *rhinitis* (stuffy nose; runny nose; sneezing).

EXTERNAL THROAT: *hypothyroidism* (constipation; depressed mood; dry skin and hair; feeling cold; hair loss; hoarseness or husky voice; muscle cramps and stiffness; slowed heartbeat; weight gain; unusual tiredness or weakness).

STOMACH: *nausea*.

ABDOMEN: *pancreatitis* (abdominal pain or distension; nausea; vomiting).

RESPIRATION: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); **infection, upper respiratory tract** (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

CHEST: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *gynecomastia* (enlargement of breasts); *pain, chest*.

BACK: *pain, back*.

EXTREMITIES: **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); carpal tunnel syndrome, mild and transient; edema, dependent (swelling of legs and feet); edema, peripheral (swelling of hands, feet, or lower legs); pain, joint, muscle or skeletal; slipped capital femoral epiphysis in children (limp; pain in hip or knee); acromegaly (amenorrhea; backache; changes in vision; excessive sweating; extreme weakness; headache; increase in hat, glove, or shoe size; joint pain; pain in extremities; polydipsia; polyuria).

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep).

PERSPIRATION: sweating, increased.

SKIN: growth of nevi, increased; allergic reaction (skin rash or itching).

GENERALITIES: **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **hypertension** (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); **hypoesthesia** (abnormal or decreased touch sensation); **hypothyroidism** (constipation; depressed mood; dry skin and hair; feeling cold; hair loss; hoarseness or husky voice; muscle cramps and stiffness; slowed heartbeat; weight gain; unusual tiredness or weakness); **infection, upper respiratory tract** (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **influenza-like symptoms** (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **paresthesias** (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); edema, generalized (swelling); pain, joint, muscle or skeletal; tiredness or weakness, unusual; antibodies to growth hormone; atherosclerosis; diabetes mellitus; enlargement, organ; lipodystrophy at site of injection (depression of the skin); pain at site of injection; swelling at site of injection; acromegaly (amenorrhea; backache; changes in vision; excessive sweating; extreme weakness; headache; increase in hat, glove, or shoe size; joint pain; pain in extremities; polydipsia; polyuria); hypoglycemia, initially (anxiety; behavior change similar to drunkenness; blurred vision; cold sweats; confusion; cool, pale skin; difficulty in concentrating; drowsiness; excessive hunger; fast heartbeat; headache; nausea; nervousness; nightmares; restless sleep; shakiness; slurred speech; unusual tiredness or weakness).

DIAGNOSTIC TESTS: **hypothyroidism**; atherosclerosis; enlargement, organ; hypoglycemia, initially.

Secondary Actions or Rebound Effects: hyperglycemia, subsequently (blurred vision; drowsiness; dry mouth; flushed, dry skin; fruit-like breath odor; increased frequency and volume of urination; ketones in urine; loss of appetite; nausea or vomiting; stomachache; tiredness; troubled breathing [rapid and deep]; unconsciousness; unusual thirst).

Guaifenesin (Systemic)

Commercial name(s): *Anti-Tuss; Balminil Expectorant; Benylin-E; Breonesin; Calmylin Expectorant; Diabetic Tussin EX; Fenesin; Gee-Gee; Genatuss; Glycotuss; Glytuss; Guiatuss; Halotussin; Humibid L.A; Humibid Sprinkle; Hytuss; Hytuss-2X; Naldecon Senior EX; Organidin NR; Pneumomist; Resyl; Robitussin; Scot-tussin Expectorant; Sinumist-SR; Touro EX; Uni-tussin.*

Category: Expectorant.

Conventional indications: Cough (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

STOMACH: nausea; pain; vomiting.

RECTUM: diarrhea.

SKIN: rash; urticaria (hives).

Guanabenz (Systemic)

Commercial name(s): *Wytensin.*

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: irritability; lethargy (unusual tiredness or weakness).

VERTIGO: **dizziness**.

HEAD: headache.

EYE: miosis (pinpoint pupils).

MOUTH: dryness.

STOMACH: nausea.

GENITALIA MALE: sexual ability, decreased.

GENITALIA FEMALE: sexual ability, decreased.

CHEST: bradycardia (slow heartbeat).

SLEEP: **drowsiness**; somnolence.

GENERALITIES: **hypotension** (dizziness, severe); **weakness**; bradycardia (slow heartbeat).

Secondary Actions or Rebound Effects: *anxiety; blood pressure, elevation above baseline levels; cramps, stomach; headache; heartbeat, fast or irregular; nausea; nervousness; pain, chest; restlessness; salivation, increased; shaking or trembling of hands or fingers; sweating, increase in; tenseness; trouble in sleeping; vomiting.*

Guanadrel (Systemic)

Commercial name(s): *Hylorel.*

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: **hypotension, orthostatic** (dizziness, lightheadedness, or fainting, especially when getting up from a lying or sitting position) (morning *orthostatic hypotension* is less frequent with guanadrel than with guanethidine).

HEAD: headache.

MOUTH: dryness.

ABDOMEN: bowel movements, increase in.

RECTUM: diarrhea.

BLADDER: nocturia (nighttime urination).

GENITALIA MALE: **ejaculating, difficulty in**.

RESPIRATION: dyspnea (shortness of breath).

CHEST: angina (chest pain).

EXTREMITIES: **edema, peripheral** (swelling of feet or lower legs); pain, muscle.

SLEEP: **drowsiness**.

GENERALITIES: **hypotension; fatigue** (unusual tiredness or weakness); **hypotension, orthostatic** (dizziness, lightheadedness, or fainting, especially when getting up from a lying or sitting position) (morning *orthostatic hypotension* is less frequent with guanadrel than with guanethidine); **weight gain or loss, excessive**; pain, muscle; tremor.

Guanethidine (Systemic)

Commercial name(s): Apo-Guanethidine; Ismelin.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: **hypotension, orthostatic** (dizziness, lightheadedness, or fainting, especially when getting up from a lying or sitting position) (most marked in the morning possibly due to an early morning reduction in vascular volume or by an inhibitory effect of guanethidine on the diurnal rhythm of catecholamine excretion).

HEAD: hair on scalp, loss of; headache.

EYE: drooping eyelids.

VISION: blurred vision.

NOSE: **congestion** (stuffy nose).

MOUTH: dryness.

STOMACH: nausea; vomiting.

ABDOMEN: **bowel movements, increase in**.

RECTUM: **diarrhea**.

BLADDER: nocturia (nighttime urination).

GENITALIA MALE: **ejaculating, difficulty in**.

CHEST: **bradycardia** (slow heartbeat); angina (chest pain); edema, pulmonary (shortness of breath).

EXTREMITIES: edema, peripheral (swelling of feet or lower legs); pain, muscle

SKIN: rash.

GENERALITIES: *hypotension*; **bradycardia** (slow heartbeat); **hypotension, orthostatic** (dizziness, lightheadedness, or fainting, especially when getting up from a lying or sitting position) (most marked in the morning possibly due to an early morning reduction in vascular volume or by an inhibitory effect of guanethidine on the diurnal rhythm of catecholamine excretion); **tiredness or weakness, unusual**; pain, muscle; tremors; shock.

Guanfacine (Systemic)

Commercial name(s): *Tenex*.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: confusion; depression, mental.

VERTIGO: **dizziness**; faintness.

HEAD: headache.

EYE: conjunctivitis (dry, itching, or burning eyes).

MOUTH: **dryness**.

STOMACH: nausea; vomiting.

RECTUM: **constipation**.

GENTALIA MALE: sexual ability decreased.

GENTALIA FEMALE: sexual ability decreased.

RESPIRATION: difficulty in breathing.

CHEST: heartbeat, slow.

SLEEP: **drowsiness**; trouble in sleeping.

GENERALITIES: tiredness or weakness, unusual; heartbeat, slow.

Secondary Actions or Rebound Effects: ***hypertension***; *sympathetic overactivity* (anxiety or tenseness; chest pain; fast or irregular heartbeat; headache; increased salivation; nausea; nervousness; restlessness; shaking or trembling of hands and fingers; stomach cramps; sweating; trouble in sleeping; vomiting) (does not occur until 2 to 7 days after abrupt withdrawal of guanfacine).

Haemophilus b Conjugate Vaccine (Systemic)

Commercial name(s): *Act-Hib; Hibtiter; Pedvaxhib; Prohibit.*

Category: Immunizing agent (active).

Conventional indications: *Haemophilus influenzae* type b disease (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: irritability; lethargy (lack of interest; reduced physical activity).

STOMACH: anorexia (loss of appetite); vomiting.

RECTUM: diarrhea.

FEVER: fever up to 39° C (102.2° F) (usually resolves within 48 hours); fever over 39° C (over 102.2° F) (usually resolves within 48 hours).

SKIN: induration (hard lump); rash; urticaria (hives).

GENERALITIES: erythema at injection site (redness); tenderness at injection site; swelling, or warm feeling at injection site; anaphylactic reaction (difficulty in breathing or swallowing; hives; itching, especially of soles or palms; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); convulsions; thrombocytopenia, temporally.

DIAGNOSTIC TESTS: thrombocytopenia, temporally.

Haemophilus b Polysaccharide Vaccine (Systemic)

Other commonly used names: *Haemophilus influenzae* type b polysaccharide vaccine; HbPV; Hib CPS; Hib polysaccharide vaccine; PRP.

Category: Immunizing agent (active).

Conventional indications: *Haemophilus influenzae* type b disease (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: irritability; lethargy (lack of interest; reduced physical activity).

STOMACH: anorexia (lack of appetite); vomiting.

RECTUM: diarrhea.

SLEEP: sleep disturbance (trouble in sleeping).

FEVER: fever up to 39° C (102.2° F); fever over 39° C (over 102.2° F).

SKIN: erythema at injection site (redness at place of injection); induration at injection site (hard lump at place of injection).

GENERALITIES: erythema at injection site (redness at place of injection); tenderness at injection site; serum sickness-like reaction (itching; skin rash; swelling of face; arthralgia; joint pain); swelling at injection site; anaphylactic reaction (difficulty in breathing or swallowing; hives; itching, especially of soles or palms; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); convulsions.

Haloperidol (Systemic)

Commercial name(s): *Apo-Haloperidol; Haldol; Haldol Decanoate; Haldol LA; Novo-Peridol; PMS Haloperidol; Peridol.*

Category: Antipsychotic; Antidyskinetic (Gilles de la Tourette's syndrome; Huntington's chorea); Antiemetic.

Conventional indications: Psychotic disorders (treatment); Behavior problems, severe (treatment); Gilles de la Tourette's syndrome (treatment); Autism, infantile (treatment); Chorea, Huntington's (treatment); Nausea and vomiting, cancer chemotherapy-induced (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **akathisia** (restlessness or need to keep moving); comatose state.

VERTIGO: hypotension, orthostatic (dizziness, lightheadedness, or fainting); dizziness.

HEAD: *stroke, heat* (hot, dry skin; inability to sweat; muscle weakness; confusion).

VISION: **blurred vision.**

MOUTH: **dryness.**

STOMACH: thirst, decreased.

RECTUM: **constipation.**

BLADDER: urination, difficult.

GENITALIA MALE: sexual ability, decreased.

GENITALIA FEMALE: **menstrual period, changes in;** sexual ability, decreased.

RESPIRATION: *bronchopneumonia; ventilation, pulmonary, reduced;* breathing difficulty, severe.

CHEST: **secretion of milk, unusual; soreness in breasts in females; swelling in breasts in females;** *bronchopneumonia.*

EXTREMITIES: **akathisia** (restlessness or need to keep moving); *rigidity, skeletal muscle.*

SLEEP: drowsiness.

FEVER: *hyperthermia.*

SKIN: allergic reaction (red and raised, or acne-like skin rash); sensitivity of skin to sun, increased.

GENERALITIES: **extrapyramidal effects, dystonic** (muscle spasms of face, neck, and back; tic-like or twitching movements; twisting movements of body; inability to move eyes; weakness of arms and legs); **extrapyramidal effects, parkinsonian** (difficulty in speaking or swallowing; loss of balance control; mask-like face; shuffling walk; stiffness of arms or legs; trembling and shaking of hands and fingers); **weight gain;** hypotension, orthostatic (dizziness, lightheadedness, or fainting); tiredness or weakness, unusual; *agranulocytosis* (sore throat and fever; unusual bleeding or bruising); *autonomic dysfunction; death, sudden and unexpected; dehydration; hemoconcentration; hyperthermia; jaundice, obstructive* (yellow eyes or skin); *leukocytosis* (9500 to 26,000 cells per cubic millimeter); *neuroleptic malignant syndrome (NMS)* (difficult or unusually fast breathing; fast heartbeat or irregular pulse; high fever; high or low [irregular] blood pressure; increased sweating; loss of bladder control; severe muscle stiffness; seizures; unusual tiredness or weakness; unusually pale skin); *rigidity, skeletal muscle; stroke, heat* (hot, dry skin; inability to sweat; muscle weakness; confusion); comatose state; elevated

creatine kinase (CK); hepatic enzyme elevation; jerking, stiffness, or trembling, muscle, severe; movements, uncontrolled; shock-like state.

DIAGNOSTIC TESTS: *agranulocytosis; hemoconcentration; leukocytosis; elevated creatine kinase (CK); hepatic enzyme elevation.*

Secondary Actions or Rebound Effects: *hallucinations; nausea; vomiting; dyskinesia, persistent tardive* (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of the arms and legs); *consciousness, altered; dyskinesia, withdrawal emergent* (trembling of fingers and hands; uncontrolled, repetitive movements of mouth, tongue, and jaw) (more frequent in elderly patients, women, and patients with brain damage); *dystonia, tardive* (increased blinking or spasms of eyelid; unusual facial expressions or body positions; uncontrolled twisting movements of neck, trunk, arms, or legs); jerking, stiffness, or trembling, muscle, severe; movements, uncontrolled.

Heparin (Systemic)

Commercial name(s): *Calcilean; Calciparine; Hepalean; Heparin Leo; Liquaemin.*

Category: Anticoagulant.

Conventional indications: Thrombosis, deep venous (prophylaxis and treatment); Thromboembolism, pulmonary (prophylaxis and treatment); Thromboembolism (prophylaxis); Blood clotting (prophylaxis); Coagulation, disseminated intravascular (treatment); Thromboembolism, arterial (treatment); Thrombosis, cerebral (prophylaxis); Thromboembolism, cerebral, recurrence (prophylaxis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness* (internal bleeding).

HEAD: *hair loss, unusual* (long-term therapy); *headaches, severe or continuing* (internal bleeding).

NOSE: *nosebleeds, unexplained.*

MOUTH: *bleeding from gums when brushing teeth.*

TEETH: *bleeding from gums when brushing teeth.*

STOMACH: *vomiting of blood or material that looks like coffee grounds* (internal bleeding).

ABDOMEN: *ileus, paralytic* (internal bleeding); *obstruction, intestinal* (internal bleeding); *pain, abdominal; swelling, abdominal* (internal bleeding).

RECTUM: *constipation caused by hemorrhage-induced paralytic ileus or intestinal obstruction.*

STOOL: *bloody or black, tarry stools* (internal bleeding).

URINE: *blood in urine.*

GENITALIA MALE: *erection, frequent or persistent.*

GENITALIA FEMALE: *bleeding, menstrual, unusually heavy or unexpected.*

RESPIRATION: *cyanosis; tachypnea.*

COUGH: *coughing up blood.*

CHEST: *pain, chest.*

BACK: *pain, back, or backaches* (internal bleeding).

EXTREMITIES: *itching and burning feeling, especially on the plantar site of the feet; neuropathy, peripheral* (numbness or tingling in hands or feet); *pain, coldness, and blue color of skin of arms or legs; ischemia in one or more limbs; osteoporosis* (back or rib pain; decrease in height) (long-term therapy); *pain, stiffness, or swelling, joint* (internal bleeding).

SKIN: *hives, localized* (subcutaneous injection); *necrosis, cutaneous* (peeling or sloughing of skin) (subcutaneous injection); *bruising or purplish areas on skin, unexplained; hair loss, unusual* (long-term therapy).

GENERALITIES: *bleeding; allergic reaction* (fever with or without chills; runny nose; headache; nausea with or without vomiting; shortness of breath, troubled breathing, wheezing, or tightness in chest; skin rash, itching, or hives; tearing of eyes); *anaphylactoid reaction, possibly including anaphylactic shock* (changes in facial skin color; skin rash, hives, and/or itching; fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sudden, severe decrease in blood pressure and collapse); *hematoma* (collection of blood under skin [blood blister]) (subcutaneous injection); *histamine-like reaction* (subcutaneous injection); *irritation at injection site* (subcutaneous injection); *itching and burning feeling, especially on the plantar site of the feet; neuropathy, peripheral* (numbness or tingling in hands or feet); *pain at injection site* (subcutaneous injection); *redness at injection site* (subcutaneous injection); *ulceration at injection site* (subcutaneous injection); *aldosterone synthesis, suppressed* (inhibition of renal function, hyperkalemia, and metabolic acidosis); *bleeding or oozing from cuts or wounds, heavy; bruising or purplish areas on skin, unexplained; cyanosis; death; hair loss, unusual* (long-term therapy); *hemorrhage, adrenal* ([abdominal pain, apprehension, diarrhea, dizziness or fainting, headache, loss of appetite, nausea or vomiting, and weakness] resulting in acute adrenal insufficiency); *osteoporosis* (back or rib pain; decrease in height) (long-term therapy); *pain, stiffness, or swelling, joint* (internal bleeding); *thrombocytopenia, reversible*.

DIAGNOSTIC TESTS: *blood in urine; thrombocytopenia, reversible.*

Secondary Actions or Rebound Effects: *white clot syndrome* (formation of new thrombi composed primarily of fibrin platelet aggregates, which may cause thrombotic complications including organ infarction, skin necrosis, gangrene of the extremities, pulmonary embolism, and stroke).

Hepatitis A Vaccine Inactivated (Systemic)

Commercial name(s): *Havrix; Vaqta.*

Category: Immunizing agent (active).

Conventional indications: Hepatitis A (prophylaxis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *syncope.*

HEAD: *headache*; *encephalitis* (confusion; irritability; headache; seizures; stiff neck; vomiting).

NOSE: *congestion* (stuffy nose).

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

EXTERNAL THROAT: *lymphadenopathy* (swelling of glands in neck).

STOMACH: *anorexia* (lack of appetite); *nausea*; *cramps*; *pain*; *vomiting*.

RECTUM: *diarrhea*.

GENITALIA FEMALE: *menstruation disorder* (change in pattern of monthly periods; change in amount of bleeding during periods; unusual stopping of menstrual bleeding; bleeding between periods).

RESPIRATION: *infection, upper respiratory* (cough; fever; sneezing; sore throat); *dyspnea*.

BACK: *pain, back*.

EXTREMITIES: *pain, arm*; *stiffness*; *arthralgia* (aches or pain in joints); *arthritis* (aches or pain in joints); *ataxia, cerebellar* (shakiness and unsteady walk; unsteadiness, trembling, or other problems with muscle control or coordination); *lymphadenopathy* (swelling of glands in armpits); *myalgia* (aches or pain in muscles); *neuropathy*.

FEVER: *fever $\geq 37.7^{\circ}\text{C}$ (100°F)*.

PERSPIRATION: *hyperhidrosis*.

SKIN: *erythema multiforme*; *pruritus* (itching); *urticaria* (welts).

GENERALITIES: *soreness at injection site*; *asthenia/fatigue* (lack or loss of strength); *infection, upper respiratory* (cough; fever; sneezing; sore throat); *malaise* (general feeling of discomfort or illness); *pain, soreness, bruising, tenderness or warmth at injection site*; *stiffness*; *anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of soles or palms; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *angioedema*; *convulsions*; *edema, localized*; *encephalitis* (confusion; irritability; headache; seizures; stiff neck; vomiting); *encephalopathy*; *erythema multiforme*; *Guillain-Barre syndrome* (sudden numbness and weakness in the arms and legs; inability to move arms and legs); *hepatitis*; *jaundice*; *lymphadenopathy* (swelling of glands in armpits or neck); *myelitis*; *neuropathy*; *paresthesia*; *sclerosis, multiple*; *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: *thrombocytopenia*.

Hepatitis A Virus Vaccine Inactivated and Hepatitis B Virus Vaccine Recombinant (Systemic)

Commercial name(s): *Twinrix*.

Category: Immunizing agent (active).

Conventional indications: Hepatitis A and Hepatitis B virus infection (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation; irritability.*

VERTIGO: *dizziness; syncope* (fainting or lightheadedness when getting up from a lying or sitting position; unusually fast heartbeat; palpitations); *vertigo* (feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: *migraine* (severe headache).

FACE: *flushing* (feeling of warmth; redness of the face).

EXTERNAL THROAT: *flushing* (feeling of warmth; redness of the neck).

STOMACH: *anorexia* (loss of appetite; weight loss).

ABDOMEN: *pain, abdominal.*

RESPIRATION: *infection, upper respiratory tract* (cough; fever; sneezing; sore throat); *illness, respiratory tract* (headache; sore throat; runny nose; fever).

CHEST: *flushing* (feeling of warmth; redness of the upper chest).

BACK: *pain, back.*

EXTREMITIES: *arthralgia* (pain, swelling, or redness in joints; difficulty in moving); *flushing* (feeling of warmth; redness of the arms); *myalgia* (muscle pain).

SLEEP: *insomnia* (sleeplessness; trouble sleeping); *somnolence* (sleepiness; unusual drowsiness).

PERSPIRATION: *sweating.*

SKIN: *erythema* (redness of skin; unusually warm skin); *flushing* (feeling of warmth; redness of the face, neck, arms and occasionally upper chest); *petechiae* (small, red or purple spots on skin); *rash; urticaria* (hives or skin rash; itching).

GENERALITIES: *soreness at injection site; induration at injection site* (hardening or thickening of skin at injection site); *infection, upper respiratory tract* (cough; fever; sneezing; sore throat); *anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of feet or hands; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *arthralgia* (pain, swelling, or redness in joints; difficulty in moving); *ecchymoses at injection site* (bruising; large, flat, blue or purplish patches in the skin); *flushing* (feeling of warmth; redness of the face, neck, arms and occasionally upper chest); *illness, respiratory tract* (headache; sore throat; runny nose; fever); *influenza-like symptoms* (nausea; vomiting); *itching at injection site; myalgia* (muscle pain); *paresthesia* (tingling, burning, or prickly sensations); *redness at injection site; swelling at injection site; weakness.*

Hepatitis B Immune Globulin (Human) (Systemic)

Commercial name(s): *Nabi-HB.*

Category: Immunizing agent (passive).

Conventional indications: Hepatitis B, following percutaneous or permucosal exposure (prophylaxis); Hepatitis B, following perinatal exposure (prophylaxis); Hepatitis B, following sexual exposure (prophylaxis); Hepatitis B, following household exposure (prophylaxis); Hepatitis B virus infection, recurrence of in liver transplant recipients (prophylaxis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: lightheadedness.

HEAD: headache.

STOMACH: nausea; retching (feeling as if you are going to vomit).

ABDOMEN: cramping, abdominal.

RECTUM: diarrhea.

BACK: pain, back.

EXTREMITIES: myalgia (muscle aches or pain); arthralgia (joint pain).

CHILL: chills.

SKIN: rash.

GENERALITIES: malaise (general feeling of discomfort); myalgia (muscle aches or pain); pain or ache at injection site; arthralgia (joint pain); burning at injection site; erythema at injection site (redness of skin; unusually warm skin); fatigue (unusual tiredness or weakness); heat at injection site.

Hepatitis B Vaccine Recombinant (Systemic)

Commercial name(s): Engerix-B; Recombivax HB; Recombivax HB Dialysis Formulation.

Category: Immunizing agent (active).

Conventional indications: Hepatitis B virus infection (prophylaxis); Hepatitis D virus infection (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: agitation; irritability.

VERTIGO: vertigo (dizziness); syncope.

HEAD: headache; migraine.

EYE: conjunctivitis; keratitis; neuritis, optic (blurred vision or other vision changes).

HEARING: tinnitus.

EXTERNAL THROAT: lymphadenopathy (swelling of glands in neck); pain in neck; stiffness in neck.

STOMACH: anorexia (lack of appetite); appetite decreased; cramps, abdominal (stomach cramps); nausea; pain, abdominal (stomach pain); vomiting.

ABDOMEN: cramps, abdominal (stomach cramps); hepatic enzyme elevation; herpes zoster; pain, abdominal (stomach pain).

RECTUM: constipation; diarrhea.

RESPIRATION: illness, upper respiratory tract (headache, sore throat, runny nose, or fever).

CHEST: herpes zoster; tachycardia.

BACK: herpes zoster; pain, back; radiculopathy.

EXTREMITIES: lymphadenopathy (swelling of glands in armpit); neuropathy (muscle weakness or numbness or tingling of limbs); pain, shoulder; stiffness in shoulder.

SLEEP: insomnia or sleep disturbance (trouble in sleeping); somnolence.

CHILL: chills.

FEVER: fever of 37.7° C (100° F) or over.

PERSPIRATION: sweating, increased.

SKIN: *induration* (hard lump); *erythema* (redness); *pruritus* (itching); *flushing* (sudden redness of skin); *herpes zoster*; *petechiae*; *rash*; *urticaria* (welts).

GENERALITIES: *soreness at injection site*; *ecchymosis* (purple spot); *fatigue* (unusual tiredness or weakness); *pain at injection site*; *swelling at injection site*; *tenderness at injection site*; *warmth at injection site*; *anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of feet or hands; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *arthralgia* (aches or pain in joints); *arthritis* (aches or pain in joints); *erythrocyte sedimentation rate increase*; *flushing*; *herpes zoster*; *hypesthesia*; *hypotension* (unusual tiredness or weakness); *illness, upper respiratory tract* (headache, sore throat, runny nose, or fever); *influenza-like symptoms*; *lymphadenopathy* (swelling of glands in armpit or neck); *malaise* (general feeling of discomfort or illness); *myalgia* (aches or pain in muscles); *myelitis*; *neuropathy* (muscle weakness or numbness or tingling of limbs); *nodule at injection site* (lump at place of injection) (probably from the aluminum content of the vaccine); *serum sickness-like reaction* (aches or pain in joints, fever, or skin rash or welts); *Stevens-Johnson syndrome*; *tachycardia*; *thrombocytopenia*.

DIAGNOSTIC TESTS: *erythrocyte sedimentation rate increase*; *thrombocytopenia*.

Histamine (Systemic)

Commercial name(s): *Histamine biphosphate*; *Histamine dihydrogen phosphate*; *Histamine diphosphate*.

Category: Diagnostic aid (gastric function).

Conventional indications: Antacidity (diagnosis); Gastric histamine test; Hypersecretory conditions, gastric (diagnosis); Asthma (diagnosis).

Primary Actions or Pathogenetic Symptoms

MIND: nervousness.

HEAD: dilatation of cerebral vessels (continuing or severe headache).

VISION: *blurred vision*.

FACE: *coloration, bluish* (with large doses); *flushing*; *redness*.

MOUTH: taste, metallic.

STOMACH: cramps; nausea; spasms; ulcer, peptic, due to increased acid secretion; vomiting.

ABDOMEN: cramps, abdominal; spasms, abdominal.

RECTUM: diarrhea.

RESPIRATION: *difficulty in breathing*.

CHEST: *tachycardia* (fast or pounding heartbeat); *discomfort, chest* (with large doses); *pain, chest* (with large doses).

GENERALITIES: *hypertension* (dizziness, continuing or severe headache); *redness at injection site* (with subcutaneous administration); *swelling at injection site* (with subcutaneous administration); *tachycardia* (fast or pounding heartbeat); *seizures*; *triple response* (erythema from capillary dilatation, wheal due to local edema from increased

capillary permeability, and a flare from a neuronal reflex mechanism producing a surrounding area of arteriolar vasodilatation).

Secondary Actions or Rebound Effects: **hypotension** (dizziness, lightheadedness, or fainting); blood pressure, decrease in, sudden (with large doses).

Histamine H₂-receptor Antagonists (Systemic)

Commercial name(s): *Acid Control; Act; Alti-Ranitidine; Apo-Cimetidine; Apo-Famotidine; Apo-Nizatidine; Apo-Ranitidine; Axid; Axid AR; Dyspep HB; Fluxid; Gen-Cimetidine; Gen-Famotidine; Gen-Ranitidine; Maalox H2 Acid Controller; Mylanta AR Acid Reducer; Novo-Cimetidine; Novo-Famotidine; Novo-Ranitidine; Nu-Cimet; Nu-Famotidine; Nu-Ranit; PMS-Cimetidine; Pepcid; Pepcid AC; Pepcid AC Acid Controller; Pepcid I.V.; Pepcid RPD; Peptol; Tagamet; Tagamet HB; Tagamet HB 200; Ulcidine; Ulcidine-HB; Zantac; Zantac 150; Zantac 150 EFFERdose Tablets; Zantac 25 EFFERdose Tablets; Zantac 300; Zantac 75.*

Category: Histamine H₂-receptor antagonist; Antiulcer agent; Gastric acid secretion inhibitor; Urticaria therapy adjunct [Cimetidine].

Conventional indications: Ulcer, duodenal (prophylaxis and treatment); Ulcer, gastric (treatment) [Cimetidine, famotidine, nizatidine, and ranitidine]; Ulcer, gastric (prophylaxis) [Cimetidine and ranitidine]; Heartburn, acid indigestion, and sour stomach associated with hyperacidity (prophylaxis and treatment) [Nonprescription strengths of the histamine H₂-receptor antagonists cimetidine, famotidine, and ranitidine]; Hypersecretory conditions, gastric (treatment), Zollinger-Ellison syndrome (treatment), Mastocytosis, systemic (treatment) or Adenoma, multiple endocrine (treatment) [Cimetidine, famotidine, nizatidine, and ranitidine]; Gastroesophageal reflux disease [GERD] (treatment) [Cimetidine, famotidine, nizatidine]; Pancreatic insufficiency (treatment adjunct) [Cimetidine]; Bleeding, upper gastrointestinal (treatment) [Cimetidine, famotidine, and ranitidine]; Stress-related mucosal damage (prophylaxis and treatment) [Parenteral ranitidine]; Pneumonitis, aspiration (prophylaxis) [Cimetidine, ranitidine, and famotidine]; Arthritis, rheumatoid (treatment adjunct) [Cimetidine and ranitidine]; Urticaria, acute (treatment adjunct) [Cimetidine].

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; agitation; confusion; depression, mental; hallucinations* (seeing, hearing, or feeling things that are not there); *nervousness; psychosis* (severe mental illness).

VERTIGO: *dizziness.*

HEAD: *alopecia* (hair loss) [Cimetidine; Famotidine; Ranitidine]; *headache.*

VISION: *amblyopia* (changes in vision) [Nizatidine]; *blurred vision* [Ranitidine].

HEARING: *tinnitus* (ringing or buzzing in ears) [Famotidine].

NOSE: *rhinitis* (runny nose) [Nizatidine]; *sinusitis* [Nizatidine].

MOUTH: *dryness* [Famotidine; Nizatidine].

THROAT: *pharyngitis* [Nizatidine].

STOMACH: anorexia (loss of appetite) [Famotidine]; nausea [Famotidine; Nizatidine; Ranitidine]; vomiting [Famotidine; Nizatidine; Ranitidine].

ABDOMEN: pain, abdominal [Famotidine; Nizatidine; Ranitidine]; pancreatitis (abdominal pain; fever; muscle ache; vomiting) [Cimetidine; Ranitidine].

RECTUM: constipation [Famotidine; Nizatidine; Ranitidine]; diarrhea.

BLADDER: retention, urinary (difficulty in urinating) [Cimetidine].

KIDNEYS: nephritis, interstitial (fever; increase or decrease in urination; skin rash or hives) [Cimetidine].

GENITALIA MALE: impotence (decrease in sexual ability); libido, decreased (decrease in sexual desire).

GENITALIA FEMALE: libido, decreased (decrease in sexual desire).

LARYNX AND TRACHEA: edema, laryngeal (shortness of breath, troubled breathing, or unusually slow or irregular breathing).

RESPIRATION: bronchospasm (wheezing or troubled breathing, severe) [Famotidine; Nizatidine; Ranitidine].

COUGH: cough, increased [Nizatidine].

CHEST: gynecomastia (swelling of the breasts or breast soreness in both females and males); block, atrioventricular (dizziness; fainting; slow heartbeat; troubled breathing; unusual tiredness or weakness); bradycardia (slow heartbeat); bronchospasm (wheezing or troubled breathing, severe) [Famotidine; Nizatidine; Ranitidine]; pain, chest [Nizatidine]; palpitations (fast, pounding, or irregular heartbeat) [Famotidine]; tachycardia (fast, pounding, or irregular heartbeat); ventricular beats, premature (fast or irregular heartbeat; sudden faintness or weakness) [Ranitidine].

BACK: pain, back [Nizatidine].

EXTREMITIES: polymyositis (fever; joint pain; muscle tenderness, weakness, or pain; skin rash; unusual tiredness or weakness; weight loss) [Cimetidine]; arthralgia (joint pain) [Cimetidine; Famotidine; Ranitidine]; myalgia (muscle ache).

SLEEP: insomnia (trouble in sleeping) [Famotidine; Nizatidine; Ranitidine]; somnolence (drowsiness).

FEVER: fever.

PERSPIRATION: sweating, increased [Nizatidine].

SKIN: alopecia (hair loss) [Cimetidine; Famotidine; Ranitidine]; dryness [Famotidine]; dermatitis, exfoliative (chills; fever; redness and scaling of skin); erythema multiforme (blisters on palms of hands and soles of feet; fever; general feeling of discomfort or illness; joint pain; redness of skin); necrolysis, epidermal, toxic (blisters; chills; fever; general feeling of discomfort or illness; muscle aches; peeling or sloughing of skin; red or irritated eyes; redness, tenderness, or burning of skin; sores or ulcers on lips or in mouth); pruritus (itching); rash; urticaria (hives).

GENERALITIES: alopecia (hair loss) [Cimetidine; Famotidine; Ranitidine]; agranulocytosis (fever; sore throat; unusual tiredness or weakness) [Cimetidine; Famotidine; Ranitidine]; anaphylaxis (chills; coughing; difficulty in swallowing; fast heartbeat; fever; skin rash, hives, or itching; shortness of breath, troubled breathing, wheezing, or tightness in chest; swelling of face, lips, or eyelids); anemia (unusual tiredness or weakness) [Nizatidine]; anemia, aplastic (shortness of breath, troubled breathing, wheezing, or tightness in chest; sores, ulcers, or white spots on lips or in mouth);

swollen or painful glands; unusual bleeding or bruising); *anemia, hemolytic, immune* (back, leg, or stomach pain; fever; nausea, vomiting, or loss of appetite; unusual tiredness or weakness); *angioedema* (swelling of face, mouth, lips, tongue, hands or feet; sudden difficult breathing); *arthralgia* (joint pain) [Cimetidine; Famotidine; Ranitidine]; *asthenia* (unusual tiredness or weakness) [Famotidine; Nizatidine]; *block, atrioventricular* (dizziness; fainting; slow heartbeat; troubled breathing; unusual tiredness or weakness); *eosinophilia* (fever; loss of appetite; muscle ache; unusual tiredness or weakness; weight loss); *erythema multiforme* (blisters on palms of hands and soles of feet; fever; general feeling of discomfort or illness; joint pain; redness of skin); *fatigue* (unusual tiredness or weakness) [Famotidine]; *hepatitis* (dark-colored urine; flu-like symptoms; light-colored stools); *hyperuricemia* (joint pain) (not associated with gout or nephrolithiasis) [Nizatidine]; *infection* [Nizatidine]; *jaundice* (yellow eyes or skin); *leukopenia* (chills; fever; sore throat); *myalgia* (muscle ache); *neutropenia* (continuing sores or ulcers in mouth and throat; fever; sore throat); *pain* [Nizatidine]; *palpitations* (fast, pounding, or irregular heartbeat) [Famotidine]; *pancytopenia* (fever; sore throat; sores or ulcers in mouth and throat; unusual bleeding or bruising); *serum sickness* (fever; itching or hives; joint pain; skin rash) [Nizatidine]; *sinusitis* [Nizatidine]; *Stevens-Johnson syndrome* (bleeding or crusting sores on lips; chills; fever; muscle cramps; pain; skin rash or itching; sore throat; sores, ulcers, or white spots on lips, in mouth, or on genitals; weakness); *thrombocytopenia* (unusual bleeding or bruising); *vasculitis* (inflammation of blood vessels).

DIAGNOSTIC TESTS: *agranulocytosis* [Cimetidine; Famotidine; Ranitidine]; *anemia* [Nizatidine]; *anemia, aplastic*; *anemia, hemolytic, immune*; *block, atrioventricular*; *eosinophilia*; *hyperuricemia* [Nizatidine]; *leukopenia*; *neutropenia*; *pancytopenia*; *thrombocytopenia*.

Histrelin (Systemic)

Commercial name(s): *Vantas*.

Category: Antineoplastic.

Conventional indications: Carcinoma, prostate (palliative treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); *irritability*; *lethargy* (unusual drowsiness; dullness; tiredness; weakness or feeling of sluggishness).

VERTIGO: *dizziness*.

HEAD: *headache*; *hypertrichosis* (increased hair growth on forehead).

FACE: *hot flashes* (feeling of warmth; redness of the face); *edema, peripheral* (bloating or swelling of face); *flushing* (feeling of warmth; redness of the face).

EXTERNAL THROAT: *hot flashes* (feeling of warmth; redness of the neck); *flushing* (feeling of warmth; redness of the neck); *pain, neck*.

STOMACH: *appetite increased*; *craving for food*; *discomfort, abdominal* (stomach soreness or discomfort); *nausea*.

ABDOMEN: *discomfort, abdominal* (stomach soreness or discomfort); *hepatic disorder* (dark urine; light-colored stools; loss of appetite; nausea and vomiting; unusual tiredness; yellow eyes or skin; fever with or without chills; stomach pain).

RECTUM: *constipation* (difficulty having a bowel movement [stool]) .

BLADDER: *dysuria* (difficult or painful urination burning while urinating); *frequency, urinary* (increased need to urinate; passing urine more often); *retention, urinary* (decrease in urine volume; decrease in frequency of urination; difficulty in passing urine; [dribbling] painful urination).

KIDNEYS: *calculus renal* (blood in urine; difficult urination; pain in lower back; pain or burning while urinating; sudden decrease in amount of urine); *failure, renal, aggravated* (back/side pain; decreased frequency /amount of urine bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure); *impairment, renal* (lower back/side pain; decreased frequency /amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure).

URINE: *hematuria aggravated* (blood in urine).

GENITALIA MALE: **atrophy, testicular** (decrease in testicle size); *erectile dysfunction* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection); *libido decreased* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection); *pruritus, genital (male)* (itching or pain of the genital area); *sexual dysfunction* (decreased sexual performance or desire; abnormal ejaculation).

RESPIRATION: *dyspnea exertional* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: **hot flashes** (feeling of warmth; redness of upper chest); *gynecomastia* (swelling of the breasts or breast soreness in both females and males); *extrasystoles, ventricular* (extra heart beat); *flushing* (feeling of warmth; redness of upper chest); *gynecomastia aggravated* (swelling of the breasts or breast soreness in both females and males); *pain, breast; palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); *tenderness, breast*.

BACK: *hypertrichosis* (increased hair growth on back); *pain, back*.

EXTREMITIES: **hot flashes** (feeling of warmth; redness of the arms); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *edema, peripheral* (bloating or swelling of arms, hands, lower legs, or feet; tingling of hands or feet); *flushing* (feeling of warmth; redness of the arms); *hypertrichosis* (increased hair growth on arms and legs); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *pain, bone, or in limb; tremor* (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet); *twitching, muscle*.

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep).

CHILL: *feeling cold*.

PERSPIRATION: *night sweats; sweating increased*.

SKIN: **hot flashes** (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest sudden; sweating); *erythema* (flushing, redness of skin; unusually warm skin);

flushing (feeling of warmth redness of the face, neck, arms and occasionally, upper chest); *pruritus* (itching skin).

GENERALITIES: **fatigue** (unusual tiredness or weakness); **hot flashes** (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest sudden; sweating); **implant site reaction** (infection, irritation, redness or swelling to skin, local); **weight increased**; **anemia** (pale skin, troubled breathing with exertion, unusual bleeding or bruising, unusual tiredness or weakness); **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **contusion** (large, flat, blue or purplish patches in the skin); **edema, peripheral** (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); **extrasystoles, ventricular** (extra heart beat); **feeling cold**; **fluid retention** (decrease in amount of urine; noisy, rattling breathing; shortness of breath; swelling of fingers, hands, feet, or lower legs; troubled breathing at rest; weight gain); **hematoma** (collection of blood under skin deep, dark purple bruise itching, pain, redness, or swelling); **hepatic disorder** (dark urine; light-colored stools; loss of appetite; nausea and vomiting; unusual tiredness; yellow eyes or skin; fever with or without chills; stomach pain); **hypercalcemia** (abdominal pain; confusion; constipation; depression; dry mouth; headache; incoherent speech; increased urination; loss of appetite; metallic taste; muscle weakness; nausea; thirst; unusual tiredness; vomiting; weight loss); **hypercholesterolemia** (large amount of cholesterol in the blood); **hypertrichosis** (increased hair growth on forehead, back, arms, and legs); **infection/inflammation** (redness, feeling of heat); **malaise** (general feeling of discomfort or illness; unusual tiredness or weakness); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **pain; pain, bone; palpitations** (fast, irregular, pounding, or racing heartbeat or pulse); **stent occlusion; swelling; tremor** (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet); **twitching, muscle; weakness; weight decreased**.

DIAGNOSTIC TESTS: *anemia; calculus renal; hematuria aggravated; hypercalcemia; hypercholesterolemia.*

HMG-CoA Reductase Inhibitors (Systemic)

Commercial name(s): *Altoprev; Lescol; Lipitor; Mevacor; Pravachol; Zocor.*

Category: HMG-CoA reductase inhibitor; Antihyperlipidemic.

Conventional indications: Hyperlipidemia (treatment) [3-Hydroxy-3-methylglutaryl coenzyme A (HMG-CoA) reductase inhibitors]; Stroke or transient ischemic attack (prophylaxis) [Simvastatin].

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

STOMACH: heartburn; nausea; pain.

ABDOMEN: gas; pain, abdominal; pancreatitis, acute [Simvastatin and Lovastatin].

RECTUM: constipation; diarrhea.

GENTALIA MALE: impotence (decreased sexual ability).

EXTREMITIES: *myalgia* (fever; muscle aches or cramps; unusual tiredness or weakness); *myositis* (fever; muscle aches or cramps; unusual tiredness or weakness); *rhabdomyolysis* (fever; muscle aches or cramps; unusual tiredness or weakness; may lead to renal failure).

SLEEP: *insomnia* (trouble in sleeping).

SKIN: *rash*.

GENERALITIES: *myalgia* (fever; muscle aches or cramps; unusual tiredness or weakness); *myositis* (fever; muscle aches or cramps; unusual tiredness or weakness); *rhabdomyolysis* (fever; muscle aches or cramps; unusual tiredness or weakness; may lead to renal failure).

DIAGNOSTIC TESTS: *laboratory anomalies*.

Homatropine (Ophthalmic)

Commercial name(s): *AK-Homatropine; I-Homatrine; Isopto Homatropine; Minims Homatropine; Spectro-Homatropine*.

Category: Cycloplegic; mydriatic.

Conventional indications: Refraction, cycloplegic; Uveitis (treatment); Mydriasis, postoperative or preoperative; Lens opacities, axial.

Primary Actions or Pathogenetic Symptoms

MIND: *behavior, unusual; clumsiness; confusion; hallucinations* (seeing, hearing, or feeling things that are not there); *slurred speech*.

EYE: *cyclopegia* (paralysis of the ciliary muscle, resulting in a loss of visual accommodation); *mydriasis* (extensive pupils); *burning, transient; irritation not present before therapy* (resulting in follicular conjunctivitis, vascular congestion, edema, exudate, contact dermatitis, or an eczematoid dermatitis); *sensitivity to light, increased; stinging, transient; swelling of the eyelids*.

VISION: *cyclopegia* (paralysis of the ciliary muscle, resulting in a loss of visual accommodation); *blurred vision*.

FACE: *flushing; redness*.

MOUTH: *slurred speech; xerostomia* (thirst or dryness of mouth).

STOMACH: *swollen stomach in infants*.

CHEST: *tachycardia* (fast or irregular heartbeat).

EXTREMITIES: *clumsiness; unsteadiness*.

SLEEP: *drowsiness, unusual*.

FEVER: *fever*.

SKIN: *dryness; rash*.

GENERALITIES: *tachycardia* (fast or irregular heartbeat); *tiredness; weakness*.

Hyaluronate Sodium (Systemic)

Commercial name(s): *Hyalgan*.

Category: Analgesic.

Conventional indications: Pain (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

STOMACH: appetite, loss of; nausea; pain; vomiting.

RECTUM: diarrhea.

EXTREMITIES: inflammation of the knee (swelling of the knee).

SKIN: pruritus (itching of the skin).

GENERALITIES: *pain absence*; *ecchymosis* (large, nonelevated blue or purplish patches in the skin); *pain at the injection site*; *allergic reaction* (fever; injection site reaction; skin rash, hives and/or itching); *anaphylactoid reaction* (bluish discoloration or flushing or redness of skin; coughing; difficulty in swallowing; dizziness or feeling faint, severe; skin rash; hives [may include giant urticaria and/or itching]; stuffy nose; swelling of eyelids, face, or lips; tightness in chest, troubled breathing, and/or wheezing).

Hyaluronate Sodium Derivative (Systemic)

Commercial name(s): Synvisc.

Category: Analgesic.

Conventional indications: Pain (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: headache.

FACE: *flushing with swelling of the lips*.

STOMACH: *nausea*.

RESPIRATION: *difficulty breathing; shortness of breath*.

CHEST: *tachycardia* (rapid heartbeat).

EXTREMITIES: *pain, knee; swelling of the knee; cramps, calf; infection of the joint; pain, muscle*.

SKIN: *hives; itching; rash*.

GENERALITIES: *pain absence*; *pain at the injection site*; *infection of the joint*; *pain on one side of the body with anxiety, nausea, and tiredness*; *pain, muscle*; *tachycardia* (rapid heartbeat).

Hyaluronidase (Parenteral-Local)

Commercial name(s): Amphadase; Vitrase.

Category: Enzyme (promotes diffusion of injected substances).

Conventional indications: Absorption and dispersion of other injected drugs (adjuvant); Hypodermoclysis (adjunct); Urography, subcutaneous (adjunct).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

EYE: *angioedema* (large, hive-like swelling on eyelids).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

STOMACH: nausea; vomiting.

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

CHEST: tachycardia (fast, pounding, or irregular heartbeat or pulse).

EXTREMITIES: *angioedema* (large, hive-like swelling on hands, legs, feet).

CHILL: chills.

SKIN: *urticaria* (hives or welts; itching; redness of skin; skin rash); erythema (flushing; redness of skin; unusually warm skin).

GENERALITIES: **injection site reactions** (bleeding, blistering, burning, coldness, discoloration of skin, feeling of pressure, hives, infection, inflammation, itching, lumps, numbness, pain, rash, redness, scarring, soreness, stinging, swelling, tenderness, tingling, ulceration, or warmth at injection site); *allergic reactions* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *edema* (swelling; with hypodermoclysis); edema, local (swelling); hypotension (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); tachycardia (fast, pounding, or irregular heartbeat or pulse).

Hydralazine (Systemic)

Commercial name(s): *Apo-Hydral; Apo-Hydralazine; Apresoline; Apresoline Injection; Novo-Hylazin.*

Category: Antihypertensive; Vasodilator, congestive heart failure.

Conventional indications: Hypertension (treatment); Congestive heart failure (treatment) [combined with isosorbide dinitrate].

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

EYE: *lacrimation* (watery eyes).

NOSE: *congestion* (stuffy nose).

FACE: *flushing; redness.*

STOMACH: **anorexia** (loss of appetite); **nausea; vomiting.**

ABDOMEN: *hepatotoxicity.*

RECTUM: **diarrhea; constipation.**

KIDNEYS: *glomerulonephritis* (blisters on skin; chest pain; general feeling of discomfort, illness, or weakness; muscle pain; joint pain; skin rash or itching; sore throat and fever); *retention, sodium and water* (swelling of feet or lower legs).

RESPIRATION: *dyspnea* (shortness of breath).

CHEST: **vasodilation; palpitations** (pounding heartbeat); **tachycardia** (fast heartbeat); *angina pectoris* (chest pain); *stimulation, myocardial.*

EXTREMITIES: neuritis, peripheral (numbness, tingling, pain, or weakness in hands or feet).

SKIN: allergic reaction (skin rash or itching); vasculitis, cutaneous (blisters on skin); purpura (fever; general feeling of discomfort or illness; sore throat; weakness); flushing.

GENERALITIES: hypotension; vasodilation; palpitations (pounding heartbeat); tachycardia (fast heartbeat); edema (swelling of feet or lower legs); lupus erythematosus (SLE)-like syndrome, systemic (adenopathy, arthralgias, arthritis, fever, malaise, myalgias, pericarditis with or without effusions, pleuritis with or without effusions, and, rarely, skin rash and glomerulonephritis); lymphadenopathy (swelling of lymph glands); neuritis, peripheral (numbness, tingling, pain, or weakness in hands or feet); retention, sodium and water (swelling of feet or lower legs) (rebound effect?); antinuclear antibody (ANA) titer, positive; agranulocytosis; leukopenia; shock, severe.

DIAGNOSTIC TESTS: agranulocytosis; antinuclear antibody (ANA) titer, positive; leukopenia.

Secondary Actions or Rebound Effects: ischemia, myocardial, and subsequent myocardial infarction (anxiety; cough; dizziness, lightheadedness, or fainting; nausea; prolonged abdominal, back, or chest pain that may radiate to the arms, shoulders, neck, chest, back, teeth, or jaw; shortness of breath, sudden; sweating, unusual; vomiting; marked ST segment depression).

Hydralazine and Hydrochlorothiazide (Systemic)

Commercial name(s): *Apresazide*.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

GENERALITIES: hypotension.

Hydralazine - See Hydralazine (Systemic).

Hydrochlorothiazide - See Diuretics, Thiazide (Systemic).

Hydrocodone and Ibuprofen (Systemic)

Other commonly used names: Hydrocodone Bitartrate and Ibuprofen.

Commercial name(s): *Vicoprofen*.

Category: Analgesic.

Conventional indications: Pain (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: anxiety; nervousness; confusion; depression; euphoria (unusual feeling of well-being); irritability; mood or mental changes; slurred speech; thinking abnormalities.

VERTIGO: dizziness.

HEAD: **headache**; *meningitis* (severe headache; drowsiness; confusion; stiff neck and/or back; general feeling of illness or nausea) [Ibuprofen].

VISION: *disturbances, visual*; blurred vision [Ibuprofen].

HEARING: *tinnitus* (ringing or buzzing in the ears); difficulty hearing [Ibuprofen].

NOSE: *rhinitis* (runny nose); *sinusitis* (runny nose; headache).

FACE: swelling of the face [Ibuprofen].

MOUTH: **dryness**; *slurred speech*; *ulcers*.

THROAT: *dysphagia* (difficulty swallowing); *esophagitis* (difficulty in swallowing); *pharyngitis* (pain or burning in throat).

STOMACH: **nausea**; **vomiting**; *anorexia* (decreased appetite); *dyspepsia* (stomach upset); *gastritis* (burning feeling in chest or stomach; tenderness in the stomach area); *gastroenteritis* (diarrhea; nausea; stomach pain); *thirst, increased*; *bleeding, gastrointestinal, serious potential life-threatening*; pain [Ibuprofen].

ABDOMEN: **flatulence** (gas); *gastroenteritis* (diarrhea; nausea; stomach pain); *bleeding, gastrointestinal, serious potential life-threatening*.

RECTUM: **constipation**; *melena* (bloody stools); *bleeding, gastrointestinal, serious potential life-threatening*.

STOOL: *melena* (bloody stools).

BLADDER: *incontinence, urinary* (loss of bladder control); *retention, urinary* (inability to urinate); *urge to urinate, frequent*.

GENITALIA MALE: *impotence* (decrease in sexual ability).

RESPIRATION: *bronchitis* (congestion in chest; cough); *dyspnea* (shortness of breath); slow or troubled breathing [Hydrocodone].

CHEST: **palpitations** (pounding heart beat); *arrythmia* (irregular heartbeat); *bronchitis* (congestion in chest; cough); *tachycardia* (increased heart rate); heartbeat, slow [Hydrocodone].

EXTREMITIES: **edema** (swelling of feet or lower legs); *tremor* (trembling or shaking of hands or feet); swelling of fingers, feet, or lower legs [Ibuprofen].

SLEEP: **insomnia** (trouble in sleeping); **somnolence** (sleepiness); drowsiness, severe [Hydrocodone].

FEVER: *fever*.

PERSPIRATION: **sweating increased**.

SKIN: **pruritus** (itching of the skin); cold, clammy skin [Hydrocodone]; rash [Ibuprofen].

GENERALITIES: *pain absence*; **asthenia** (unusual tiredness or weakness); **palpitations** (pounding heart beat); *allergic reaction* (changes in facial skin color; skin rash, hives, and/or itching; fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest and/or wheezing); *hypotension* (lightheadedness or dizziness); *paresthesias* (sensation of burning, warmth, heat, numbness, tightness, or tingling); *sinusitis* (runny nose; headache); *tachycardia* (increased heart rate); *tremor* (trembling or shaking of hands or feet); *weight loss, unexplained*; *dependence, physical, with or without psychological dependence*; *meningitis* (severe headache; drowsiness; confusion; stiff neck and/or back; general feeling of illness or nausea) [Ibuprofen]; *tolerance*; heartbeat, slow [Hydrocodone].

Secondary Actions or Rebound Effects: *stroke*.

Hydroxyamphetamine and Tropicamide (Ophthalmic)

Commercial name(s): *Paremyd.*

Category: Cycloplegic; Mydriatic.

Conventional indications: Mydriasis, in diagnostic procedures.

Primary Actions or Pathogenetic Symptoms

MIND: *agitation; anxiety; behavioral disturbances* (mood or mental changes; unusual behavior such as disorientation to time or place; failure to recognize people; hyperactivity or restlessness); *confusion; excitement, unusual feeling of; hallucinations; irritability; nervousness; psychotic reactions* (mood or mental changes; unusual behavior such as disorientation to time or place; failure to recognize people; hyperactivity or restlessness); *restlessness.*

VERTIGO: *lightheadedness.*

HEAD: *headache.*

EYE: *mydriasis* (extensive pupils); *cyclopegia* (paralysis of the ciliary muscle, resulting in a loss of visual accommodation); *burning, transient; irritation not present before therapy* (resulting in follicular conjunctivitis, vascular congestion, edema, exudate, contact dermatitis, or an eczematoid dermatitis); *photophobia* (with or without corneal staining) (blurred vision; change in color vision; difficulty seeing at night; increased sensitivity of eyes to sunlight); *pressure, intraocular, increased* (blurred vision; eye pain; loss of vision); *stinging, transient* (temporary stinging in the eyes).

VISION: *cyclopegia* (paralysis of the ciliary muscle, resulting in a loss of visual accommodation); *blurred vision.*

MOUTH: *dryness.*

STOMACH: *nausea; vomiting; irritation, gastrointestinal* (bloating; diarrhea; gas; heartburn; indigestion; loss of appetite; nausea; stomach pain; vomiting).

ABDOMEN: *irritation, gastrointestinal* (bloating; diarrhea; gas; heartburn; indigestion; loss of appetite; nausea; stomach pain; vomiting).

RESPIRATION: *collapse, cardiorespiratory* (loss of consciousness).

CHEST: *collapse, cardiorespiratory* (loss of consciousness); *discomfort, sub-sternal* (pressing or painful feeling in chest); *fibrillation, ventricular* (fainting; fast, slow, or irregular heartbeat; shortness of breath; unusual tiredness or weakness); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); *arrhythmias, cardiac* (chest pain or discomfort; dizziness; fainting; fast, slow, or irregular heartbeat; lightheadedness; pounding or rapid pulse).

EXTREMITIES: *rigidity, muscle* (muscle stiffness or tightness).

DREAMS: *nightmares.*

PERSPIRATION: *sweating.*

SKIN: *pallor* (pale skin).

GENERALITIES: *allergic reactions* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips

or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *collapse, cardiorespiratory* (loss of consciousness); *collapse, vasomotor* (chest pain or discomfort; cold, clammy, pale skin; confusion; dizziness; irregular heartbeats; shortness of breath; slow heart rate; weakness); *fibrillation, ventricular* (fainting; fast, slow, or irregular heartbeat; shortness of breath; unusual tiredness or weakness); *hypotensive episodes* (blurred vision; confusion; dizziness; faintness or lightheadedness when getting up from a lying or sitting position; sudden sweating; unusual tiredness or weakness) (rebound effect?); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating); *rigidity, muscle* (muscle stiffness or tightness); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); *tremor*; arrhythmias, cardiac (chest pain or discomfort; dizziness; fainting; fast, slow, or irregular heartbeat; lightheadedness; pounding or rapid pulse); hypertension (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat).

Hydroxychloroquine (Systemic)

Commercial name(s): *Plaquenil*.

Category: Antiprotozoal; Antirheumatic (disease-modifying); Lupus erythematosus suppressant; Antihypercalcemic; Polymorphous light eruption suppressant; Porphyria cutanea tarda suppressant.

Conventional indications: Malaria (prophylaxis and treatment); Arthritis, rheumatoid (treatment); Lupus erythematosus, discoid (treatment); Lupus erythematosus, systemic (treatment); Arthritis, juvenile (treatment); Hypercalcemia, sarcoid-associated (treatment); Polymorphous light eruption (treatment); Porphyria cutanea tarda (treatment); Urticaria, solar (treatment); Vasculitis, chronic cutaneous (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness*; *restlessness*; *emotional changes* (mood or other mental changes); *psychosis* (mood or other mental changes); coma; hyperexcitability.

VERTIGO: *dizziness*; *lightheadedness*.

HEAD: *headache*; *bleaching of hair*; *hair loss, increased*.

EYE: *ciliary muscle dysfunction* (difficulty in reading); *keratopathy* (blurred vision or any other change in vision); *opacities, corneal* (blurred vision or any other change in vision); *retinopathy* (blurred vision or any other change in vision); *toxicity, ocular*; *damage, retinal, irreversible* (when the daily dosage equals or exceeds the equivalent of 310 mg (base), or 5 mg (base) per kg daily).

VISION: *ciliary muscle dysfunction* (difficulty in reading); disturbances, visual (blurred vision).

EAR: *ototoxicity* (any loss of hearing; ringing or buzzing in ears).

MOUTH: *discoloration of inside of mouth, blue-black*.

STOMACH: *irritation, gastrointestinal* (diarrhea; loss of appetite; nausea; stomach cramps or pain; vomiting).

ABDOMEN: *irritation, gastrointestinal* (diarrhea; loss of appetite; nausea; stomach cramps or pain; vomiting).

RESPIRATION: arrest, respiratory.

CHEST: arrest, cardiac; conduction, cardiovascular, disturbances.

EXTREMITIES: *neuromyopathy* (increased muscle weakness).

NAILS: discoloration of fingernails, blue-black.

SLEEP: drowsiness.

SKIN: **itching** (especially in black patients); discoloration, blue-black; hair loss, increased; rash; psoriasis, psoriasiform eruption [1].

GENERALITIES: *hypocalcemia; hair loss, increased; agranulocytosis* (sore throat and fever); *anemia, aplastic* (fatigue; weakness); *neuromyopathy* (increased muscle weakness); *neutropenia* (sore throat and fever); *seizures; thrombocytopenia* (unusual bleeding or bruising); coma; conduction, cardiovascular, disturbances; death; hypotension.

DIAGNOSTIC TESTS: *hypocalcemia; agranulocytosis; anemia, aplastic; neutropenia; thrombocytopenia.*

Complementary Bibliography: [1] Kim GK, Del Rosso JQ. Drug-provoked psoriasis: is it drug induced or drug aggravated? Understanding pathophysiology and clinical relevance. *J Clin Aesthet Dermatol* 2010; **3**(1): 32-38.

Hydroxypropyl Cellulose (Ophthalmic)

Commercial name(s): *Lacrisert.*

Category: Protectant (ophthalmic); Tears (artificial).

Conventional indications: Keratoconjunctivitis sicca (treatment); Corneal erosions, recurrent (treatment); Corneal sensitivity, decreased (treatment); Keratitis, exposure (treatment); Keratitis, neuroparalytic (treatment); Ocular lubrication.

Primary Actions or Pathogenetic Symptoms

EYE: discomfort; irritation not present before therapy; matting of eyelashes; redness; sensitivity to light, increased; stickiness of eyelashes; swelling of eyelids; watering.

VISION: blurred vision.

Hydroxypropyl Methylcellulose (Ophthalmic)

Commercial name(s): *Artificial Tears; Bion Tears; Eyelube; Gonak; Goniosoft; Goniosol; Isopto Alkaline; Isopto Plain; Isopto Tears; Just Tears; Lacril; Methocel; Moisture Drops; Nature's Tears; Ocucoat; Ocucoat PF; Ocutears; Tearisol; Tears Naturale; Tears Naturale Free; Tears Naturale II; Tears Renewed; Ultra Tears.*

Category: Protectant (ophthalmic); Tears (artificial); Lubricant (ophthalmic); Diagnostic aid (contact lens procedures; gonioscopy).

Conventional indications: Keratitis, exposure (treatment); Keratitis, neuroparalytic (treatment); Keratoconjunctivitis sicca (treatment); Corneal erosions, recurrent (treatment); Corneal sensitivity, decreased (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: matting of eyelashes; stickiness of eyelashes; irritation not present before therapy.

VISION: *blurred vision.*

Hydroxypropyl Methylcellulose (Parenteral-Local)

Commercial name(s): *Ocucoat.*

Category: Surgical aid (ophthalmic).

Conventional indications: Anterior segment, surgical procedures of.

Primary Actions or Pathogenetic Symptoms

EYE: **pressure, intraocular, increase in** (asymptomatic); *decompensation, corneal* (blurred vision or other change in vision); *edema, corneal; hypopyon* (pooling of whitish fluid visible on the colored part of the eye); *iritis* (sensitivity to light; tearing; throbbing pain in eye).

Hydroxyurea (Systemic)

Commercial name(s): *Droxia; Hydrea.*

Category: Antineoplastic; Antianemic.

Conventional indications: Carcinoma, ovarian (treatment); Carcinoma, cervical (treatment); Carcinoma, head and neck (treatment adjunct); Leukemia, chronic myelocytic (treatment); Melanoma (treatment); Thrombocytosis, essential (treatment); Polycythemia vera (treatment); Sickle cell anemia, painful crises (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *hallucinations, visual and auditory* (administration to patients with severe renal function impairment).

HEAD: *hair, loss of; metastatic disease, cerebral* (confusion; convulsions; dizziness; hallucinations; headache).

FACE: *stomatitis* (sores on lips).

MOUTH: *stomatitis* (sores in mouth and on lips).

STOMACH: **appetite, loss of; nausea; vomiting.**

RECTUM: **diarrhea; constipation.**

KIDNEYS: *impairment, renal function* (difficulty in urination); *nephropathy, uric acid* (joint pain; lower back or side pain; swelling of feet or lower legs).

EXTREMITIES: *gangrene* (cold, pale or a bluish color skin of the fingers or toes; itching skin; numbness or tingling of the fingers or toes; pain in the fingers or toes); edema of palms and soles (swelling of palms and soles of feet); scaling of hands and feet.

NAILS: *melanonychia* (blackening of fingernails and toenails).

SLEEP: **drowsiness.**

SKIN: *erythema, postirradiation, exacerbation of* (redness of skin at place of irradiation); *hair, loss of; itching; rash; lichen planus, atrophic* (atrophy, brittle nails, darkening or redness of skin, and skin ulcers) (in patients receiving prolonged (over several years) daily treatment); *toxicities, cutaneous vasculitic* (blisters on skin); erythema, violet (violet flushing of the skin); hyperpigmentation, severe generalized (darkening of skin color).

GENERALITIES: **anemia; erythropoiesis, megaloblastic, self-limiting** (anemia, erythrocytic or platelet abnormalities); **leukopenia; neutropenia** (cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination); *hair, loss of; thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *bone marrow depression* (black, tarry stools; blood in urine; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); *gangrene* (cold, pale or a bluish color skin of the fingers or toes; itching skin; numbness or tingling of the fingers or toes; pain in the fingers or toes); *hyperuricemia* (joint pain; lower back or side pain; swelling of feet or lower legs); *neurotoxicity or cerebral metastatic disease* (confusion; convulsions; dizziness; hallucinations; headache); *ulcerations, vasculitic* (bleeding under skin; crater-like lesions; fever; weight loss; fatigue); soreness.

DIAGNOSTIC TESTS: **anemia; erythropoiesis, megaloblastic** (anemia, erythrocytic or platelet abnormalities); **leukopenia; neutropenia; thrombocytopenia; hyperuricemia.**

Ibandronate (Systemic)

Commercial name(s): *Boniva*.

Category: Bone resorption inhibitor.

Conventional indications: Osteoporosis, postmenopausal (treatment adjunct); Osteoporosis, postmenopausal (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: depression (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping).

VERTIGO: dizziness; vertigo (dizziness or lightheadedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: **headache.**

EYE: scleritis (eye redness; eye tenderness; decreased vision; increased tearing; sensitivity to light; severe eye pain); uveitis (eye pain; tearing; sensitivity of eye to light; redness of eye; blurred vision or other change in vision).

NOSE: nasopharyngitis (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache).

FACE: osteonecrosis of the jaw (ONJ) (heavy jaw feeling; loosening of a tooth; pain, swelling, or numbness in the mouth or jaw).

TEETH: tooth disorder.

THROAT: nasopharyngitis (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache); pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); esophageal reaction (e.g., new or worsening dysphagia, pain on swallowing, retrosternal pain, or heartburn); esophagitis (difficulty in swallowing; pain or burning in throat; chest pain; heartburn; vomiting; sores, ulcers or white spots on lips or tongue or inside the mouth).

STOMACH: dyspepsia (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); gastritis (burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion); vomiting; upset stomach.

ABDOMEN: **pain, abdominal** (stomach pain).

RECTUM: **diarrhea**; constipation (difficulty having a bowel movement [stool]).

BLADDER: **infection, urinary tract** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); cystitis (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate).

KIDNEYS: **infection, urinary tract** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

RESPIRATION: **bronchitis** (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); **infection, upper respiratory** (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **pneumonia** (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

CHEST: **bronchitis** (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); **pneumonia** (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

BACK: **pain, back.**

EXTREMITIES: **exostosis** (bone growth); **pain in extremity**; **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **arthritis** (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); **joint disorder** (difficulty in moving; muscle pain or stiffness; pain, swelling, or redness in joints); **lesion, nerve root** (numbness; tingling; or weakness); **myalgia** (joint pain; swollen joints; muscle aching or cramping, muscle pains or stiffness, difficulty in moving); **osteoarthritis, localized** (difficulty in moving; muscle pain or stiffness; pain, swelling, or redness in joints); **pain, bone, joint, and/or muscle, severe and occasionally incapacitating.**

SLEEP: **insomnia** (sleeplessness; trouble sleeping; unable to sleep).

SKIN: **rash.**

GENERALITIES: **exostosis** (bone growth); **hypertension** (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); **infection, upper respiratory** (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **allergic reaction** (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **arthritis** (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); **asthenia** (lack or loss of strength); **hypercholesterolemia** (large amount of cholesterol in the blood); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **influenza** (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **injection site reaction** (bleeding, blistering, burning, coldness, discoloration of skin, feeling of pressure, hives; infection, inflammation, itching, lumps, numbness, pain, rash, redness, scarring, soreness, stinging, swelling, tenderness, tingling, ulceration, or warmth at site); **joint disorder** (difficulty in moving; muscle pain or stiffness; pain, swelling, or redness in joints); **lesion, nerve root** (numbness; tingling; or weakness); **myalgia** (joint pain; swollen joints; muscle aching or cramping, muscle pains or stiffness, difficulty in moving); **osteoarthritis, localized** (difficulty in moving; muscle pain or stiffness; pain, swelling, or redness in joints); **pain, bone, joint, and/or muscle, severe and occasionally incapacitating**; hypocalcemia (abdominal cramps; confusion; convulsions; difficulty in breathing; irregular heartbeats; mood or mental changes; muscle cramps in hands, arms, feet, legs, or face; numbness and tingling around the mouth, fingertips, or feet; shortness of breath; tremor); hypophosphatemia (bone pain; convulsions; loss of appetite; trouble breathing; unusual tiredness or weakness); ulcer.

DIAGNOSTIC TESTS: **hypercholesterolemia**; hypocalcemia; hypophosphatemia.

Ibritumomab Tiuxetan (Systemic)

Commercial name(s): *Zevalin*.

Category: Monoclonal antibody; Antineoplastic (radioactive).

Conventional indications: Lymphomas, non-Hodgkin's (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety** (fear; nervousness).

VERTIGO: dizziness.

HEAD: **headache, mild** (pain in one or more areas of the head); *hemorrhage, cerebral* (blurred vision; headache, sudden and severe; inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe); *hematoma, subdural* (blurred vision; irregular heartbeat; nausea and vomiting; severe headache).

EYE: **angioedema** (large, hive-like swelling on eyelids).

NOSE: **rhinitis** (stuffy nose; runny nose; sneezing); *epistaxis* (bloody nose that does not stop after pinching the nasal alae together and holding them continuously for 5 to 10 minutes).

FACE: **angioedema** (large, hive-like swelling on face, lips); **flushing** (feeling of warmth; redness of the face).

MOUTH: **angioedema** (large, hive-like swelling on tongue).

THROAT: **angioedema** (large, hive-like swelling on throat); **irritation, throat**.

EXTERNAL THROAT: **flushing** (feeling of warmth; redness of the neck).

STOMACH: **anorexia** (loss of appetite, weight loss); **feeling like you may vomit; nausea; pain; upset stomach; vomiting; dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); *hematemesis* (vomiting of blood or material that looks like coffee grounds).

ABDOMEN: **bowel movements, increased; enlargement, abdominal** (swelling of abdominal or stomach area; full or bloated feeling or pressure in the stomach); **pain, abdominal; hemorrhage, gastrointestinal** (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

RECTUM: **diarrhea; constipation** (difficulty having a bowel movement (stool)); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); *melenae* (bloody, black, or tarry stools).

STOOL: **loose or liquid stools; melena** (bloody, black, or tarry stools).

GENITALIA MALE: **angioedema** (large, hive-like swelling on sex organs).

GENITALIA FEMALE: **angioedema** (large, hive-like swelling on sex organs); *hemorrhage, vaginal* (heavy nonmenstrual vaginal bleeding).

RESPIRATION: **bronchospasm** (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); **dyspnea** (difficult or labored breathing; shortness of breath; tightness in chest; wheezing); *apnea* (bluish lips or skin; not breathing).

COUGH: **cough**.

CHEST: **bronchospasm** (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); **flushing** (feeling of warmth; redness of upper chest); *edema*,

pulmonary (chest pain; difficult, fast, noisy breathing, sometimes with wheezing; blue lips and fingernails; pale skin; increased sweating; coughing that sometimes produces a pink frothy sputum; shortness of breath; swelling in legs and ankles); *embolus, pulmonary* (anxiety; chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness); *tachycardia* (fast, pounding, or irregular heartbeat or pulse).

BACK: pain, back.

EXTREMITIES: **angioedema** (large, hive-like swelling on hands, legs, feet); **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **edema, peripheral** (swelling of hands, ankles, feet, or lower legs); **flushing** (feeling of warmth; redness of the arms); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *arthritis* (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving).

SLEEP: **insomnia** (sleeplessness; trouble sleeping; unable to sleep).

CHILL: chills.

FEVER: fever.

SKIN: **flushing** (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest); **pruritus** (itching skin); **rash; petechia** (small red or purple spots on skin); *urticaria, mild to severe* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: **anemia** (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **asthenia** (lack or loss of strength); **ecchymoses** (bruising; large, flat, blue or purplish patches in the skin); **flushing** (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest); **hemorrhage while thrombocytopenic** (resulting in deaths) (bleeding gums; coughing up blood; difficulty in breathing or swallowing; dizziness; headache; increased menstrual flow or vaginal bleeding; nosebleeds; paralysis; prolonged bleeding from cuts; red or dark brown urine; red or black, tarry stools; shortness of breath); **hypotension** (blurred vision; confusion; dizziness; faintness or lightheadedness when getting up from a lying or sitting position; sudden sweating; unusual tiredness or weakness); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **neutropenia** (chills; cough; fever; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands); **pain; thrombocytopenia** (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *allergic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *arthritis* (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); *hemorrhage* (bleeding gums; coughing up blood; difficulty in breathing or swallowing; dizziness; headache; increased menstrual flow or vaginal bleeding; nosebleeds; paralysis; prolonged bleeding from cuts; red or dark brown urine; red or black, tarry stools; shortness of breath); *infection, severe* (chills; confusion; dizziness; lightheadedness; fainting; fast heartbeat; fever; rapid, shallow breathing); *leukemia, acute myelogenous* (bone pain); *myelodysplastic syndrome; neutropenia, febrile* (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult

urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); pain at site of tumor; pancytopenia (chest pain or discomfort; shortness of breath; unusual bleeding or bruising; bloody nose; unusual vaginal bleeding; pinpoint red spots on skin; bloody, black, or tarry stools; blood in urine; unusual tiredness or weakness; fever; skin rash; chills; cough; diarrhea; headache; pale skin; painful or difficult urination; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands); *death* (due to infusion reactions); *encephalopathy* (agitation; back pain; blurred vision; coma; confusion; dizziness; drowsiness; fever; hallucinations; headache; irritability; mood or mental changes; seizures; stiff neck; unusual tiredness or weakness; vomiting); *immunogenicity*; *infusion reactions*; *tachycardia* (fast, pounding, or irregular heartbeat or pulse).

DIAGNOSTIC TESTS: **anemia**; **neutropenia**; **thrombocytopenia**; neutropenia, febrile; pancytopenia.

Ibuprofen and Oxycodone (Systemic)

Commercial name(s): *Combunox*.

Category: Analgesic.

Conventional indications: Pain, acute moderate to severe (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety* (fear; nervousness); *euphoria* (false or unusual sense of well-being); *nervousness*; *thinking*, *abnormal* (confusion; delusions; dementia); coma (change in consciousness, loss of consciousness) [Oxycodone]; stupor (decreased awareness or responsiveness; severe sleepiness) [Oxycodone].

VERTIGO: *dizziness*; *syncope* (fainting).

HEAD: *headache* (rebound effect?).

EYE: constricted pupils [Oxycodone].

VISION: *amblyopia* (blurred vision; change in vision; impaired vision).

HEARING: tinnitus (continuing ringing or buzzing or other unexplained noise in ears; hearing loss) [Ibuprofen].

MOUTH: *dryness*; *taste perversion*.

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: **nausea**; **vomiting**; *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); *pain*, *abdominal* (stomach pain).

ABDOMEN: *flatulence* (bloated full feeling; excess air or gas in stomach or intestines; passing gas); *enlarged abdomen*; *ileus* (abdominal pain; severe constipation; severe vomiting); *pain*, *abdominal* (stomach pain).

RECTUM: *constipation* (difficulty having a bowel movement (stool)); *diarrhea*

BLADDER: *frequency*, *urinary* (increased need to urinate; passing urine more often); *retention*, *urinary* (decrease in urine volume; decrease in frequency of urination; difficulty in passing urine [dribbling]; painful urination).

RESPIRATION: *hypoxia* (confusion; dizziness; fast heartbeat; shortness of breath; weakness); depression, respiratory (pale or blue lips, fingernails, or skin; difficult or troubled breathing; irregular, fast or slow, or shallow breathing; shortness of breath) [Oxycodone].

CHEST: *lung disorder* (difficulty in breathing); *pain, chest* (rebound effect?); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); bradycardia (chest pain or discomfort; lightheadedness, dizziness, or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); fibrillation, atrial (fast or irregular heartbeat; dizziness; fainting) [Ibuprofen].

BACK: *pain, back* (rebound effect?).

EXTREMITIES: *arthritis* (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); *hypertonia* (excessive muscle tone, muscle tension or tightness; muscle stiffness); *thrombophlebitis* (changes in skin color; pain, tenderness, swelling of foot or leg); flaccidity, skeletal muscle [Oxycodone].

SLEEP: *somnolence* (sleepiness or unusual drowsiness); *insomnia* (sleeplessness; trouble sleeping; unable to sleep); drowsiness (sleepiness) [Ibuprofen].

CHILL: *chills*.

FEVER: *fever*.

PERSPIRATION: *sweat*.

SKIN: *rash*; cold and clammy skin [Oxycodone].

GENERALITIES: *pain absence*; *asthenia* (lack or loss of strength); *vasodilation* (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or lightheadedness; sweating); *anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); *arthritis* (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); *ecchymosis* (bruising, large, flat, blue or purplish patches in the skin); *edema* (swelling); *hyperkinesia* (increase in body movements); *hypertonia* (excessive muscle tone, muscle tension or tightness; muscle stiffness); *hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); *hypokalemia* (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); *hypoxia* (confusion; dizziness; fast heartbeat; shortness of breath; weakness); *infection* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); *thrombophlebitis* (changes in skin color; pain, tenderness, swelling of foot or leg); bradycardia (chest pain or discomfort; lightheadedness, dizziness, or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); coma (change in consciousness, loss of consciousness) [Oxycodone]; death (no pulse; no blood pressure; no breathing) [Oxycodone]; depression, CNS (confusion; difficulty sleeping; disorientation; dizziness; drowsiness to profound coma; hallucination; headache; lethargy; lightheadedness; mood or other mental changes; trouble breathing; unusual tiredness or weakness) [Ibuprofen]; flaccidity, skeletal muscle [Oxycodone]; seizures (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control) [Ibuprofen]; toxicity, cardiovascular (blurred vision; chest pain; confusion; dizziness; fainting; lightheadedness;

fast or irregular heartbeat; shortness of breath; sudden fainting; unusual tiredness or weakness) [Ibuprofen].

DIAGNOSTIC TESTS: *anemia; hypokalemia; hypoxia.*

Ibutilide (Systemic)

Commercial name(s): *Corvert.*

Category: Antiarrhythmic.

Conventional indications: Arrhythmias, atrial (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *hypotension, orthostatic* (dizziness or lightheadedness when getting up from a lying or sitting position; sudden fainting).

HEAD: *headache.*

STOMACH: *nausea.*

KIDNEYS: *failure, renal.*

CHEST: *block, atrioventricular or bundle branch; bradycardia* (slow heartbeat); *extrasystoles, ventricular; palpitation; tachycardia, nonsustained monomorphic ventricular, regular, or sustained and nonsustained polymorphic ventricular; arrhythmia, nodal; congestive heart failure; extrasystoles, supraventricular; fibrillation, ventricular; rhythm, idioventricular; block, atrioventricular (AV) (third degree); ectopy, ventricular, increased.*

GENERALITIES: *bradycardia* (slow heartbeat); *extrasystoles, ventricular; hypertension; hypotension* (dizziness or lightheadedness when getting up from a lying or sitting position; sudden fainting); *palpitation; tachycardia, nonsustained monomorphic ventricular, regular, or sustained and nonsustained polymorphic ventricular; arrhythmia, nodal; extrasystoles, supraventricular; fibrillation, ventricular; rhythm, idioventricular; block, atrioventricular (AV) (third degree).*

DIAGNOSTIC TESTS: *QT segment prolongation; fibrillation, ventricular; rhythm, idioventricular; block, atrioventricular (AV) (third degree); prolongation of repolarization, increased.*

Idarubicin (Systemic)

Commercial name(s): *Idamycin.*

Category: Antineoplastic.

Conventional indications: Leukemia, acute nonlymphocytic (treatment); Leukemia, acute lymphocytic (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *alopecia* (loss of hair); *headache.*

FACE: *mucositis* (sores on lips); *neuropathy, peripheral* (numbness or tingling of face).

MOUTH: *mucositis* (sores in mouth and on lips).

STOMACH: *cramps; nausea; vomiting.*

ABDOMEN: *enterocolitis, with perforation* (severe stomach pain).

RECTUM: *diarrhea*.

KIDNEYS: *nephropathy, uric acid* (joint pain, lower back or side pain).

URINE: *reddish urine*.

CHEST: *cardiotoxicity* (in the form of arrhythmias, congestive heart failure, or other cardiomyopathies [shortness of breath; swelling of feet and lower legs; fast or irregular heartbeat]).

EXTREMITIES: *neuropathy, peripheral* (numbness or tingling of fingers, toes).

SKIN: *alopecia* (loss of hair); *erythema, postirradiation, recall* (darkening or redness of skin; if patient has received previous radiation therapy); *hives; rash*.

GENERALITIES: *alopecia* (loss of hair); *leukopenia* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *hyperuricemia* (joint pain, lower back or side pain); *necrosis, tissue, caused by extravasation* (pain at injection site); *neuropathy, peripheral* (numbness or tingling of fingers, toes, or face); *death* (due to bleeding or infection); *extravasation* (with or without accompanying stinging or burning)

DIAGNOSTIC TESTS: *leukopenia; reddish urine; thrombocytopenia; hyperuricemia*.

Idoxuridine (Ophthalmic)

Commercial name(s): *Herplex Liquifilm; Stoxil*.

Category: Antiviral (ophthalmic).

Conventional indications: Keratitis, herpes simplex virus (treatment); Keratitis, vaccinia virus (treatment); Keratoconjunctivitis, herpes simplex virus (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *hypersensitivity* (itching, redness, swelling, pain, or other sign of irritation not present before therapy); *sensitivity to light, increased; stenosis or occlusion, lacrimal punctal* (excess flow of tears); *clouding, corneal* (blurring, dimming, or haziness of vision).

VISION: *blurred vision* [Ophthalmic ointment dosage form]; *clouding, corneal* (blurring, dimming, or haziness of vision).

Ifosfamide (Systemic)

Commercial name(s): *IFEX*.

Category: Antineoplastic.

Conventional indications: Tumors, germ cell, testicular (treatment); Carcinoma, head and neck (treatment); Sarcomas, soft-tissue (treatment); Ewing's sarcoma (treatment); Lymphomas, Hodgkin's (treatment); Lymphatics, non-Hodgkin's (treatment); Carcinoma, breast (treatment); Carcinoma, cervical (treatment); Carcinoma, lung, small cell (treatment); Carcinoma, lung, non-small cell (treatment); Carcinoma, ovarian epithelial (treatment); Leukemia, acute lymphocytic (treatment); Neuroblastoma (treatment); Osteosarcoma (treatment); Tumors, germ cell, ovarian (treatment); Carcinoma, bladder

(treatment); Carcinoma, endometrial (treatment); Carcinoma, thymic (treatment); Thymoma (treatment); Wilms' tumor (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: agitation; confusion; hallucinations; *coma*.

VERTIGO: *dizziness*.

HEAD: hair, loss of.

FACE: *stomatitis* (sores on lips).

MOUTH: *stomatitis* (sores in mouth and on lips).

STOMACH: nausea; vomiting.

ABDOMEN: *hepatotoxicity*.

BLADDER: cystitis, hemorrhagic; dysuria; frequency, urinary (blood in urine; frequent urination; painful urination).

KIDNEYS: *nephrotoxicity* (metabolic acidosis; renal tubular acidosis, Fanconi syndrome, and renal rickets).

CHEST: *cardiotoxicity*; toxicity, pulmonary (cough or shortness of breath).

SKIN: hair, loss of.

GENERALITIES: encephalopathy or CNS effects (agitation; confusion; hallucinations; unusual tiredness; less frequently, dizziness; rarely, seizures; coma; with or without electroencephalogram [EEG] changes); hair, loss of; leukopenia; thrombocytopenia (rarely associated with unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *infection, resulting from leukopenia* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *phlebitis* (redness, swelling, or pain at site of injection); *coma*; death; polyneuropathy; seizures.

DIAGNOSTIC TESTS: leukopenia; thrombocytopenia; electroencephalogram (EEG) changes; metabolic acidosis.

Iloprost (Inhalation)

Commercial name(s): *Ventavis*.

Category: Antihypertensive (pulmonary).

Conventional indications: Pulmonary arterial hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: syncope (fainting).

HEAD: headache.

FACE: flushing (feeling of warmth; redness of the face); trismus (difficulty opening the mouth; lockjaw; muscle spasm, especially of neck and back); edema, peripheral (bloating or swelling of face).

MOUTH: *pain, tongue*.

EXTERNAL THROAT: flushing (feeling of warmth; redness of the neck).

STOMACH: nausea; vomiting.

RECTUM: diarrhea.

KIDNEYS: failure, kidney.

RESPIRATION: *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

COUGH: cough increased; **hemoptysis** (coughing or spitting up blood).

CHEST: *hypotension*, *pulmonary*; **flushing** (feeling of warmth; redness of upper chest); **hemoptysis** (coughing or spitting up blood); **palpitations** (fast, irregular, pounding, or racing heartbeat or pulse); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); *congestive heart failure* (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing); *pain, chest*; *tachycardia*, *supraventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations).

BACK: pain, back.

EXTREMITIES: **cramps**, **muscle**; **flushing** (feeling of warmth; redness of the arms); *edema, peripheral* (bloating or swelling of arms, hands, lower legs, or feet; tingling of hands or feet).

SLEEP: **insomnia** (sleeplessness; trouble sleeping; unable to sleep).

SKIN: **flushing** (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest).

GENERALITIES: **cramps**, **muscle**; **flu syndrome** (chill; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness vomiting); **flushing** (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest); **hypotension** (blurred vision, confusion, dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); **palpitations** (fast, irregular, pounding, or racing heartbeat or pulse); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); *tachycardia*, *supraventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations).

DIAGNOSTIC TESTS: **alkaline phosphate increased**; **GGT increased**; **lab test, abnormal**; *tachycardia*, *supraventricular*.

Imatinib (Systemic)

Commercial name(s): *Gleevec*.

Category: Antineoplastic.

Conventional indications: Leukemia, chronic myeloid (treatment); Tumors, gastrointestinal stromal (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: **headache**; *hemorrhage, cerebral* (blurred vision; headache sudden and severe; inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe).

EYE: *lacrimation, increased* (watering of eyes).

NOSE: *epistaxis* (bloody nose); *nasopharyngitis* (stuffy nose; sore throat).

MOUTH: *taste disturbance* (change in taste; bad unusual or unpleasant (after)taste).

THROAT: *nasopharyngitis* (stuffy nose; sore throat); *soreness*.

STOMACH: **nausea**; **pain, abdominal** (stomach pain); **vomiting**; *anorexia* (loss of appetite; weight loss); *dyspepsia* (acid indigestion; upset stomach); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

ABDOMEN: **pain, abdominal** (stomach pain); *flatulence* (bloated full feeling; excess air or gas in stomach or intestines; passing gas); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

RECTUM: **diarrhea** (increased bowel movements; loose stools); *constipation* (difficulty having a bowel movement (stool)); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

RESPIRATION: *dyspnea* (shortness of breath; difficult or labored breathing); *infection, upper respiratory tract* (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

COUGH: *cough*.

CHEST: *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

BACK: *pain, back*.

EXTREMITIES: **arthralgia** (joint pain); **cramps, muscle**; **myalgia** (muscle pain); **pain, musculoskeletal** (muscle or bone pain).

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep).

CHILL: *rigors* (feeling unusually cold; shivering).

FEVER: **pyrexia** (fever).

PERSPIRATION: *night sweats*.

SKIN: **rash**; *petechiae* (small red or purple spots on skin); *pruritus* (itching skin).

GENERALITIES: **anemia** (pale skin; troubled breathing, exertional; unusual bleeding or bruising; unusual tiredness or weakness); **arthralgia** (joint pain); **cramps, muscle**; **edema** (decreased urination; rapid weight gain; bloating or swelling of face, hands, lower legs, and/or feet); **fatigue** (unusual tiredness or weakness); **hemorrhage** (bleeding problems); **myalgia** (muscle pain); **neutropenia** (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); **pain, musculoskeletal** (muscle or bone pain); **thrombocytopenia** (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); **weight gain**; *asthenia* (lack or loss of strength); *ecchymoses* (bruising; large, flat, blue or purplish patches in the skin);

hypokalemia (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); infection, upper respiratory tract (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); influenza (chills; cough, nonproductive; fever, abrupt onset; general feeling of discomfort or illness; headache; muscle aches and pains; runny nose; shivering; sore throat; sweating; unusual tiredness or weakness); weakness; death; hemorrhage, tumor (GIST only); retention, fluid, local or general (pleural effusion, ascites, pulmonary edema, and rapid weight gain [with or without superficial edema]).

DIAGNOSTIC TESTS: anemia; neutropenia; thrombocytopenia; hypokalemia.

Imiglucerase (Systemic)

Commercial name(s): *Cerezyme*.

Category: Enzyme (glucocerebrosidase) replenisher.

Conventional indications: Gaucher's disease, (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

STOMACH: nausea.

ABDOMEN: discomfort, abdominal.

BLADDER: frequency, urinary, decrease in.

SKIN: pruritus (itching); rash.

GENERALITIES: blood pressure, decrease in; antibody formation.

Imipenem and Cilastatin (Systemic)

Commercial name(s): *Primaxin; Primaxin IM; Primaxin IV*.

Category: Antibacterial (systemic).

Conventional indications: Bone and joint infections (treatment); Endocarditis, bacterial (treatment); Intra-abdominal infections (treatment); Pelvic infections, female (treatment); Pneumonia, bacterial (treatment); Septicemia, bacterial (treatment); Skin and soft tissue infections (treatment); Urinary tract infections, bacterial (treatment); Melioidosis (treatment); Neutropenia, febrile (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: **nausea; vomiting.**

ABDOMEN: *colitis, pseudomembranous* (abdominal or stomach cramps and pain, severe; diarrhea, watery and severe, which may also be bloody; fever).

RECTUM: **diarrhea.**

GENERALITIES: **allergic reactions** (fever; hives; itching; skin rash; wheezing); **toxicity, CNS** (confusion; dizziness; seizures; tremors); infusion rate reaction (dizziness; nausea and vomiting; sweating; unusual tiredness or weakness); *seizures*.

Imiquimod (Topical)

Commercial name(s): *Aldara*.

Category: Antineoplastic, topical; Biological response modifier.

Conventional indications: Actinic keratoses (treatment); Carcinoma, skin (treatment); Condyloma acuminatum (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression; suicide*.

VERTIGO: *syncope* (fainting).

HEAD: **headache** (treatment of superficial basal cell carcinoma [sBCC]); *cerebrovascular accident* (blurred vision; headache; sudden and severe inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe).

EYE: *angioedema* (large, hive-like swelling on eyelids).

NOSE: **sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *rhinitis* (stuffy nose; runny nose; sneezing) (treatment of sBCC).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

EXTERNAL THROAT: *thyroiditis* (swelling of neck).

STOMACH: *nausea* (treatment of sBCC).

ABDOMEN: *hernia* (abdominal pain; lump in abdomen).

BLADDER: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

URINE: *proteinuria* (cloudy urine).

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: **infection, upper respiratory tract** (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest wheezing).

CHEST: *fibrillation, atrial* (fast or irregular heartbeat; dizziness; fainting); *pain, chest* (treatment of sBCC); *arrhythmias* (dizziness; fainting; fast, slow, or irregular heartbeat); *cardiac failure* (chest pain or discomfort; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; weight gain; wheezing); *cardiomyopathy* (chest discomfort or pain; difficulty

breathing; dizziness; faintness; fast, irregular or pounding heartbeat; shortness of breath; swelling of feet or lower legs; troubled breathing; unusual tiredness or weakness); *edema, pulmonary* (chest pain; difficult, fast, noisy breathing, sometimes with wheezing; blue lips and fingernails; pale skin; increased sweating; coughing that sometimes produces a pink frothy sputum; shortness of breath; swelling in legs and ankles); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath, nausea, sweating; vomiting).

BACK: *pain, back* (treatment of sBCC).

EXTREMITIES: *gout* (ankle, knee, or great toe joint pain; joint stiffness or swelling; lower back or side pain) (treatment of sBCC); *angioedema* (large, hive-like swelling on hands, legs, feet).

SLEEP: *insomnia* (sleeplessness; trouble sleeping unable to sleep).

FEVER: *fever* (treatment of sBCC).

SKIN: application site reaction (burning, itching, redness, skin rash, swelling, or soreness at site; can include bleeding, burning, induration, itching, pain, stinging, or tenderness at target or remote site); **burning, mild** (at remote site and at site of application); **erosion or excoriation** (at site of application) (self-induced skin lesion, such as a scratch); **erythema, mild to severe** (at site of application) (redness of skin); **flaking, mild**, (at site of application); **pain, mild** (at remote site and at site of application); **pruritus, mild** (itching of skin) (at remote site and at site of application); **rash** (at site of application); **scabbing** (at site of application); **soreness, mild** (at remote site and at site of application); **stinging, mild** (at remote site and at site of application); **tenderness, mild** (at remote site and at site of application); **ulceration or vesicles on skin** (blisters; open sores on skin) (at site of application); *carcinoma, squamous* (persistent non-healing sore; reddish patch or irritated area; shiny bump; pink growth; white, yellow or waxy scar-like area); *hypopigmentation* (lightening of normal skin color) (at site of application); *dermatitis, exfoliative* (cracks in the skin; loss of heat from the body; red, swollen skin; scaly skin); psoriasis, psoriasisiform eruption [1].

GENERALITIES: **edema** (at site of application) (swelling of skin); **infection, fungal, including tinea cruris** (itching in genital or other skin areas; scaling); **infection, upper respiratory tract** (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *carcinoma, squamous* (persistent non-healing sore; reddish patch or irritated area; shiny bump; pink growth; white, yellow or waxy scar-like area); *fatigue* (unusual tiredness or weakness) (treatment of sBCC); *gout* (ankle, knee, or great toe joint pain; joint stiffness or swelling; lower back or side pain) (treatment of sBCC); *hypercholesterolemia* (high amount of cholesterol in the blood); *hypertension* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat) (treatment of sBCC); *infection, viral* (chills; cough or hoarseness; fever; cold flu-like symptoms); *lymphadenopathy* (swollen, painful, or tender lymph glands in neck, armpit, or groin) (treatment of sBCC); *arrhythmias* (dizziness; fainting; fast, slow, or irregular heartbeat); *capillary leak syndrome* (cloudy urine; decrease or increase in amount of urine; fainting or lightheadedness; nausea; stomach pain; swelling of hands, ankles, feet,

or lower legs); *convulsions*; *influenza-like symptoms* (diarrhea; fatigue; fever; headache; muscle pain); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath, nausea, sweating; vomiting); *ischemia* (chest pain or discomfort; irregular heartbeat; nausea or vomiting; pain in the shoulders, arms, jaw or neck; sweating); *multiple sclerosis aggravation*; *paresis* (partial or slight paralysis)

DIAGNOSTIC TESTS: *hypercholesterolemia*; *liver function, abnormal* (lab results that show problems with liver); *proteinuria*.

Complementary Bibliography: [1] Kim GK, Del Rosso JQ. Drug-provoked psoriasis: is it drug induced or drug aggravated? Understanding pathophysiology and clinical relevance. *J Clin Aesthet Dermatol* 2010; **3**(1): 32-38.

Immune Globulin Intravenous (Human) (Systemic)

Commercial name(s): *Gamimune N 10%*; *Gamimune N 10% S/D*; *Gamimune N 5%*; *Gamimune N 5% S/D*; *Gammagard Liquid*; *Gammagard S/D*; *Gammagard S/D 0.5 g*; *Gammar-P IV*; *Iveegam*; *Panglobulin*; *Polygam S/D*; *Sandoglobulin*; *Venoglobulin-I*; *Venoglobulin-S*.

Category: Immunizing agent (passive); Platelet count stimulator (systemic); Anti-Kawasaki disease (systemic); Antibacterial (systemic); Antiviral (systemic); Antipolyneuropathy agent.

Conventional indications: Immunodeficiency, primary (treatment); Thrombocytopenic purpura, idiopathic (treatment); Kawasaki disease (treatment adjunct); Leukemia, chronic lymphocytic (treatment adjunct); Transplantation, bone marrow (treatment adjunct); Human immunodeficiency virus (HIV) infection, pediatric (treatment); Dermatomyositis (treatment); Guillain-Barré syndrome (treatment); Hyperimmunoglobulinemia E syndrome (treatment); Lambert-Eaton myasthenic syndrome (treatment); Multifocal motor neuropathy (treatment); Multiple sclerosis, relapsing-remitting (treatment); Neonates, high-risk, preterm, low-birth-weight, infections in (prophylaxis and treatment adjunct); Parvovirus B19 infection, chronic (treatment); Polyneuropathies, chronic inflammatory demyelinating (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *coma* (change in consciousness; loss of consciousness); *consciousness, loss of*.

VERTIGO: *faintness*; *lightheadedness*.

HEAD: *headache*; *burning sensation in head*; *meningitis, aseptic*; *migraine attack* (in patients with a history of migraine headache); *stroke*; *vasospasm, cerebral, reversible*.

FACE: *flushing* (feeling of warmth, redness of the face).

EXTERNAL THROAT: *flushing* (feeling of warmth, redness of the neck).

STOMACH: *nausea*; *vomiting*; *pain, abdominal* (stomach pain).

ABDOMEN: *pain, hip*; *pain, abdominal* (stomach pain).

KIDNEYS: *dysfunction, renal* (decrease in urine output or decrease in urine-concentrating ability, cloudy urine); *nephrosis, tubular, osmotic*; *necrosis, tubular, renal, acute* (usually reversible, in patients who have pre-existing kidney disease and volume depletion, especially elderly, diabetic, or poorly hydrated patients).

RESPIRATION: **dyspnea** (troubled breathing); cyanosis (bluish coloring of lips or nail beds); wheezing; *apnea* (bluish lips or skin; not breathing); *bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *hypoxemia* (bluish lips or skin); *respiratory distress syndrome, acute (ARDS)* (shortness of breath; tightness in chest; troubled breathing; wheezing).

CHEST: **tachycardia** (fast or pounding heartbeat); pain, chest; *arrest, cardiac* (stopping of heart; no blood pressure or pulse; unconsciousness); *bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *edema, pulmonary* (chest pain; difficult, fast, noisy breathing, sometimes with wheezing; blue lips and fingernails; pale skin; increased sweating; coughing that sometimes produces a pink frothy sputum; shortness of breath; swelling in legs and ankles); *embolism, pulmonary*; *flushing* (feeling of warmth, redness of upper chest); *lung injury, acute, transfusion-related (TRALI)* (shortness of breath; tightness in chest; troubled breathing; wheezing).

BACK: pain or ache, back.

EXTREMITIES: **arthralgia** (joint pain); **myalgia** (muscle pain); cramps, leg; *flushing* (feeling of warmth, redness of the arms); *tremor* (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet).

CHILL: *chills*; *rigors* (feeling unusually cold; shivering).

FEVER: *fever*.

SKIN: urticaria (hives); *dermatitis, bullous* (skin blisters); *epidermolysis* (blistering, peeling, loosening of skin); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *flushing* (feeling of warmth, redness of the face, neck, arms and occasionally, upper chest).

GENERALITIES: **arthralgia** (joint pain); **malaise** (general feeling of discomfort or illness); **myalgia** (muscle pain); **tachycardia** (fast or pounding heartbeat); cyanosis (bluish coloring of lips or nail beds); fatigue (unusual tiredness or weakness); pain at injection site; rash at injection site; redness at injection site; *anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of feet or hands; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *collapse, vascular*; *coma* (change in consciousness; loss of consciousness); *death* (due to acute renal failure); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *flushing* (feeling of warmth, redness of the face, neck, arms and occasionally, upper chest); *hemolysis* (abdominal pain; back pain; dark urine; decreased urination; fever; tiredness; yellow eyes or skin); *hypertension, mild* (high blood pressure); *hyperviscosity syndrome* (in children with HIV infection who have high pretreatment levels of serum immunoglobulins); *hypotension, mild or moderate* (blurred vision, confusion, dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly, sweating, unusual tiredness or weakness); *hypoxemia* (bluish lips or skin); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual

tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *respiratory distress syndrome, acute (ARDS)* (shortness of breath; tightness in chest; troubled breathing; wheezing); *seizures* (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *thrombotic events* (severe headaches of sudden onset, sudden loss of coordination, pains in chest, groin, or legs, especially calves of legs, sudden onset of shortness of breath for no apparent reason, sudden onset of slurred speech, sudden vision changes); *tremor* (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet); *viscosity increases even further* (in patients with high normal serum viscosity in conditions such as cryoglobulinemia, hypercholesterolemia, or hypergammaglobulinemia)

DIAGNOSTIC TESTS: *hemolysis; hypoxemia.*

Inamrinone (Systemic)

Other commonly used names: Amrinone.

Commercial name(s): *Amcoral; Cartonic; Cordarex; Cordemcura; Inocor; Wincoram.*

Category: Cardiotonic.

Conventional indications: Congestive heart failure (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: *nausea; pain, abdominal* (stomach pain); *vomiting; anorexia* (loss of appetite, weight loss).

ABDOMEN: *pain, abdominal* (stomach pain); *hepatotoxicity* (yellow eyes or skin).

CHEST: *fullness or tonic effect in the heart; arrhythmias* (irregular heartbeat); *discomfort, chest; pain, chest.*

FEVER: *fever.*

GENERALITIES: *arrhythmias* (irregular heartbeat); *hypotension* (dizziness); *burning at site of injection; hypersensitivity reactions* (in patients treated with oral inamrinone for about two weeks; pericarditis, pleuritis and ascites, myositis with interstitial shadowing on chest x-ray and elevated sedimentation rate and vasculitis with nodular pulmonary densities, hypoxemia and jaundice); *thrombocytopenia* (unusual bleeding or bruising; black, sticky stools; blood in urine or stools; pinpoint red spots on skin).

DIAGNOSTIC TESTS: *thrombocytopenia.*

Indapamide (Systemic)

Commercial name(s): *Apo-Indapamide; Gen-Indapamide; Lozide; Lozol; Novo-Indapamide; Nu-Indapamide.*

Category: Antihypertensive; Diuretic.

Conventional indications: Hypertension (treatment); Edema (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: hypotension, orthostatic, as a result of volume depletion (dizziness or lightheadedness, especially when getting up from a lying or sitting position).

HEAD: headache.

STOMACH: anorexia (loss of appetite); upset stomach.

RECTUM: diarrhea.

BLADDER: frequent urination.

URINE: copious (increased) urine.

SLEEP: trouble in sleeping.

SKIN: allergic reaction (skin rash, itching, or hives).

GENERALITIES: hypotension; hypotension, orthostatic, as a result of volume depletion (dizziness or lightheadedness, especially when getting up from a lying or sitting position); electrolyte imbalance, specifically hyponatremia, hypochloremic alkalosis, or hypokalemia (dryness of mouth; increased thirst; irregular heartbeat; mood or mental changes; muscle cramps or pain; nausea or vomiting; unusual tiredness or weakness; weak pulse).

DIAGNOSTIC TESTS: electrolyte imbalance, specifically hyponatremia, hypochloremic alkalosis, or hypokalemia.

Indinavir (Systemic)

Commercial name(s): *Crixivan*.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus (HIV) infection (treatment) or Immunodeficiency syndrome, acquired (AIDS) (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: depression.

VERTIGO: dizziness.

HEAD: headache; alopecia (hair loss; thinning of hair); cerebrovascular disorder.

MOUTH: taste perversion (change in sense of taste); paresthesia, oral.

STOMACH: nausea; pain; vomiting; anorexia (loss of appetite; weight loss); appetite increase; dyspepsia (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort or pain); regurgitation, acid.

ABDOMEN: pain, abdominal; distension, abdominal; hepatic failure; liver function abnormalities; pancreatitis (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back vomiting; yellow eyes or skin).

RECTUM: diarrhea.

BLADDER: dysuria (difficult or painful urination; burning while urinating).

KIDNEYS: stones (nephrolithiasis/urolithiasis; blood in urine; sharp back pain just below ribs); impairment, renal function; nephritis, interstitial (fever; joint pain; skin rash; swelling of body or feet and ankles; unusual weight gain); pyelonephritis, with or without bacteremia (chills; fever; frequent or painful urination; headache; stomach pain).

URINE: *crystalluria* (blood in urine; difficult urination; pain in lower back; pain or burning while urinating; sudden decrease in amount of urine).

COUGH: *cough*.

CHEST: *angina pectoris* (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting).

EXTREMITIES: *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving).

NAILS: *paronychia* (redness or soreness around fingernails; loosening of the fingernails).

SLEEP: *insomnia* (difficulty in sleeping); *somnolence* (sleepiness).

FEVER: *fever*.

SKIN: *pruritus* (itching skin); *rash*; *alopecia* (hair loss; thinning of hair); *hyperpigmentation* (darkening of skin); *urticaria* (hives or welts; itching, redness of skin; skin rash).

GENERALITIES: *asthenia* (generalized weakness); *jaundice* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *malaise* (general feeling of discomfort or illness); *alopecia* (hair loss; thinning of hair); *anaphylactoid reactions* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); *anemia, acute hemolytic* (back, leg, or stomach pains; bleeding gums; chills; dark urine; difficulty breathing; fatigue; fever; general body swelling); *cardiovascular disorder* (fainting; fast or slow heartbeat; irregular pulse; troubled breathing [dyspnea] on exertion); *death* (due to acute hemolytic anemia); *diabetes* (dry or itchy skin; fatigue; hunger, increased; thirst, increased; unexplained weight loss; urination, increased); *diabetes mellitus, new onset or exacerbation of pre-existing diabetes* (blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; loss of consciousness; nausea; stomachache; sweating; troubled breathing; unexplained weight loss; vomiting); *erythema multiforme*; *hemophilia, increased spontaneous bleeding*; *hepatitis* (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); *hyperglycemia* (dry or itchy skin; fatigue; hunger, increased; thirst, increased; unexplained weight loss; urination, increased); *ketoacidosis* (confusion; dehydration; mouth odor, fruity; nausea; vomiting; weight loss); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); *redistribution/accumulation of body fat* (central obesity, dorsocervical fat enlargement (buffalo hump), peripheral wasting, breast enlargement, and “cushingoid appearance”); *Stevens Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *vasculitis* (redness, soreness or itching skin; fever; sores, welting or blisters)

DIAGNOSTIC TESTS: **stones, kidneys** (nephrolithiasis/urolithiasis); *crystalluria*; *hyperglycemia*; *ketoacidosis*.

Indium In 111 Capromab Pendetide (Systemic)

Commercial name(s): *ProstaScint*.

Category: Diagnostic aid, radioactive (prostatic disease).

Conventional indications: Prostatic carcinoma, intra-pelvic metastases (diagnosis); Prostatic carcinoma, occult, recurrence (diagnosis).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

MOUTH: taste, change in.

EXTREMITIES: weakness, muscle.

FEVER: fever.

SKIN: rash.

GENERALITIES: hypertension; hypotension; weakness, muscle; allergic reactions; anaphylaxis.

Indium In 111 Oxyquinoline (Systemic)

Category: Diagnostic aid, radioactive (inflammatory lesions; thrombosis).

Conventional indications: *Leukocytes, labeling of:* Inflammatory lesions (diagnosis). *Platelets, labeling of:* Platelet survival studies; Thrombosis, cardiac (diagnosis); Thrombosis, arterial and deep venous (diagnosis).

Primary Actions or Pathogenetic Symptoms

FEVER: pyrogenic reaction from indium In 111-labeled leukocytes (or platelets) (fever).

SKIN: allergic reaction (skin rash, hives, or itching).

GENERALITIES: pyrogenic reaction from indium In 111-labeled leukocytes (or platelets) (fever).

Indium In 111 Pentetate (Systemic)

Commercial name(s): *Indium DTPA In 111*.

Category: Diagnostic aid, radioactive (cerebrospinal fluid flow disorders).

Conventional indications: Cisternography, radionuclide.

Primary Actions or Pathogenetic Symptoms

HEAD: *meningitis, aseptic* (severe drowsiness; fever; severe headache; continuing loss of appetite; nausea; vomiting).

Indium In 111 Pentetreotide (Systemic)

Commercial name(s): *OctreoScan*.

Category: Diagnostic aid, radioactive (neuroendocrine tumors).

Conventional indications: Neuroendocrine tumors (diagnosis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

STOMACH: nausea.

EXTREMITIES: pain, joint.

FEVER: fever.

PERSPIRATION: sweating increased.

SKIN: flushing.

GENERALITIES: flushing; hypotension (dizziness or lightheadedness); pain, joint; weakness, unusual.

Indium In 111 Satumomab Pendetide (Systemic)

Commercial name(s): *OncoScint CR/OV*.

Category: Diagnostic aid, radioactive (extrahepatic malignant disease).

Conventional indications: Extrahepatic malignant disease (diagnosis).

Primary Actions or Pathogenetic Symptoms

MIND: nervousness; confusion.

VERTIGO: dizziness.

HEAD: headache.

STOMACH: nausea.

RECTUM: diarrhea.

CHEST: pain, chest.

EXTREMITIES: pain, joint.

CHILL: chills.

FEVER: fever; hypothermia.

SKIN: flushing; rash.

GENERALITIES: flushing; pain, joint; allergic reaction; anaphylaxis; hypertension; hypotension; hypothermia.

Indomethacin For Patent Ductus Arteriosus (Systemic)

Commercial name(s): *Apo-Indomethacin*; *Indameth*; *Indocid*; *Indocid PDA*; *Indocin*; *Indocin I.V*; *Novomethacin*.

Category: Ductus arteriosus, patent, closure adjunct.

Conventional indications: Ductus arteriosus, patent (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: hemorrhage, intracranial.

EYE: fibroplasia, retrolental.

STOMACH: bleeding; perforation, gastric; vomiting.

ABDOMEN: bleeding; distention, abdominal; ileus, transient; *enterocolitis, necrotizing*

KIDNEYS: impairment, renal function (decreases in urine volume; free water clearance; urine osmolality; glomerular filtration rate; creatinine clearance; and excretion of sodium, potassium, and chloride; increases in blood urea nitrogen (BUN), blood creatinine, and serum potassium; dilutional hyponatremia).

RESPIRATION: *apnea*.

CHEST: *bradycardia; infection, pulmonary, preexisting, exacerbation of*.

GENERALITIES: *bleeding problems* (pulmonary hemorrhage, disseminated intravascular coagulopathy, microscopic hematuria, and oozing at needle puncture sites); *hypoglycemia; acidosis; alkalosis; bradycardia; infection, pulmonary, preexisting, exacerbation of*.

DIAGNOSTIC TESTS: *hypoglycemia; acidosis; alkalosis*.

Infant Formulas (Systemic)

Commercial name(s): Nutritional replacement.

Category: Nutritional deficiency (prophylaxis and treatment).

Conventional indications: Nutritional deficiency (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

RECTUM: diarrhea.

GENERALITIES: dehydration (unusual thirst; unusual tiredness or weakness); *allergy, milk, signs of* (hives; wheezing); *intolerance, milk, signs of* (abdominal distention; diarrhea; stomach cramps; vomiting).

Infliximab (Systemic)

Commercial name(s): *Remicade*.

Category: Inflammatory bowel disease therapy agent; Antirheumatic agent.

Conventional indications: Ankylosing spondylitis (treatment); Arthritis, psoriatic (treatment); Crohn's disease (treatment); Rheumatoid arthritis (treatment); Psoriasis (treatment); Reactive arthritis (treatment); Inflammatory bowel disease arthritis (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *syncope* (fainting).

HEAD: headache.

NOSE: *rhinitis* (runny nose); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; headache; nasal congestion).

FACE: flushing, facial.

MOUTH: *thrush* (soreness or irritation of mouth or tongue; white patches in mouth and/or on tongue).

THROAT: *pharyngitis* (sore throat); *edema, laryngeal/pharyngeal* (coughing; difficulty in breathing; difficulty in swallowing; hoarseness; shortness of breath; slow or irregular breathing; tightness in chest; wheezing).

STOMACH: *nausea; vomiting.*

ABDOMEN: *pain, abdominal; cholecystitis* (stomach pain, severe; nausea; vomiting); *cholestasis* (abdominal or stomach pain; chills; clay-colored stools; dark urine; diarrhea; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *hernia, abdominal* (bulge of tissue through the wall of the abdomen); *infarction, splenic* (abdominal pain; pain spreading to left shoulder); *liver failure, acute* (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin); *obstruction, intestinal* (abdominal pain, severe; constipation; nausea; vomiting); *perforation, intestinal* (abdominal pain, severe; troubled breathing; vomiting); *splenomegaly* (abdominal pain; feeling of fullness); *stenosis, intestinal* (abdominal pain; nausea; vomiting).

RECTUM: *diarrhea; proctalgia* (pain in rectum).

BLADDER: *infection, urinary tract* (difficult or painful urination; frequent urge to urinate; bloody or cloudy urine); *dysuria* (difficult or painful urination).

KIDNEYS: *infarction, kidney* (back or side pain; nausea; vomiting); *obstruction, ureteral* (back or side pain, severe; nausea; vomiting).

GENITALIA FEMALE: *vaginitis* (vaginal burning or itching and discharge).

LARYNX AND TRACHEA: *edema, laryngeal/pharyngeal* (coughing; difficulty in breathing; difficulty in swallowing; hoarseness; shortness of breath; slow or irregular breathing; tightness in chest; wheezing).

RESPIRATION: *bronchitis* (cough; shortness of breath; tightness in chest; troubled breathing; wheezing); *dyspnea* (troubled breathing); **infection, upper respiratory tract** (cough; fever; nasal congestion; runny nose; sneezing; sore throat); *adult respiratory distress syndrome* (shortness of breath; tightness in chest; troubled breathing; wheezing); *bronchospasm, severe* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *pneumocytosis; pneumonia* (cough; shortness of breath; troubled breathing; tightness in chest; wheezing); *pneumonitis/fibrosis, interstitial* (cough; difficult breathing; fever; shortness of breath).

COUGH: *cough.*

CHEST: *bronchitis* (cough; shortness of breath; tightness in chest; troubled breathing; wheezing); *pain, chest; congestive heart failure; effusion, pericardial* (chest pain or discomfort; shortness of breath); *palpitations* (irregular or pounding heartbeat); *bronchospasm, severe* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *pneumocytosis; pneumonia* (cough; shortness of breath; troubled breathing; tightness in chest; wheezing); *pneumonitis/fibrosis, interstitial* (cough; difficult breathing; fever; shortness of breath); *tuberculosis* (frequently disseminated or extrapulmonary).

BACK: *pain, back.*

EXTREMITIES: *myalgia* (muscle pain); *Guillain-Barre syndrome* (sudden numbness and weakness in the arms and legs; inability to move arms and legs); *injury, tendon; neuropathy* (burning, tingling, numbness or pain in the hands, arms, feet, or legs; sensation of pins and needles; stabbing pain).

CHILL: *chills.*

FEVER: *fever.*

SKIN: **pruritus** (itching); **urticaria** (hives); *candidiasis, dermal* (skin rash; cracks in skin at the corners of mouth; soreness or redness around fingernails and toenails); *purpura, thrombocytopenic, idiopathic or not* (unusual bleeding or bruising; bloody nose; heavier menstrual periods; pinpoint red spots on skin; black, tarry stools; blood in urine; unusual tiredness or weakness; fever; skin rash); *rash; vasculitis, cutaneous* (redness, soreness or itching skin; fever; sores, welting or blisters).

GENERALITIES: **fatigue** (unusual tiredness or weakness); **hypotension** (dizziness; fainting; low blood pressure); **infection, upper respiratory tract** (cough; fever; nasal congestion; runny nose; sneezing; sore throat); **myalgia** (muscle pain); *hypertension* (headache; high blood pressure); *pain; sinusitis* (pain or tenderness around eyes and cheekbones; fever; headache; nasal congestion); *abscess* (swollen, red, tender area of infection containing pus); *adult respiratory distress syndrome* (shortness of breath; tightness in chest; troubled breathing; wheezing); *anaphylactic-like reactions* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness, or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *autoimmune antibodies, formation of, falls; Guillain-Barre syndrome* (sudden numbness and weakness in the arms and legs; inability to move arms and legs); *hepatitis* (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); *histoplasmosis; Hodgkin's disease* (swollen glands; weight loss; general feeling of illness; black, tarry stools; yellow skin and eyes); *human antichimeric antibody (HACA) development; infection, invasive fungal and other opportunistic, possibly fatal* (viral, bacterial, fungal, and protozoal); *injury, tendon; jaundice* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *listeriosis; lupus erythematosus syndrome* (skin rash, hives, or itching; fever; sore throat; swollen or painful glands; bone or joint pain; unusual tiredness or weakness); *lymphoma* (swollen glands; weight loss; general feeling of illness; black, tarry stools; yellow skin and eyes); *lymphoma, non-Hodgkins* (swollen glands weight loss general feeling of illness black, tarry stools yellow skin and eyes); *myelitis, transverse* (back pain, sudden and severe; muscle weakness, sudden and progressing); *neuropathy* (burning, tingling, numbness or pain in the hands, arms, feet, or legs; sensation of pins and needles; stabbing pain); *neutropenia* (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *palpitations* (irregular or pounding heartbeat); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *purpura, thrombocytopenic, idiopathic or not* (unusual bleeding or bruising; bloody nose; heavier menstrual periods; pinpoint red spots on skin; black, tarry stools; blood in urine; unusual tiredness or weakness; fever; skin rash); *seizure* (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss

of bladder control); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin); *vasculitis, systemic and cutaneous* (severe abdominal pain; redness, soreness or itching skin; fever; sores, welting or blisters)

DIAGNOSTIC TESTS: *leukopenia; neutropenia; pancytopenia; thrombocytopenia.*

Influenza Virus Vaccine (Systemic)

Commercial name(s): *FluMist; FluShield; Fluviral; Fluviral S/F; Fluvirin; Fluzone.*

Category: Immunizing agent (active).

Conventional indications: Influenza (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache* [nasal mist].

EAR: *otitis media* (earache; redness or swelling in ear) [nasal mist].

NOSE: *congestion* [nasal mist]; *runny nose* [nasal mist]; *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest; wheezing) [nasal mist].

ABDOMEN: *pain, abdominal* [nasal mist].

RECTUM: *diarrhea* [nasal mist].

COUGH: *cough.*

EXTREMITIES: *myalgia starting 6 to 12 hours after administration and persisting 1 or 2 days* (aches or pains in muscles).

FEVER: *fever starting 6 to 12 hours after administration and persisting 1 or 2 days.*

GENERALITIES: *tenderness, redness, or induration at the site of injection, lasting 1 or 2 days* (tenderness, redness, or hard lump at place of injection); *malaise starting 6 to 12 hours after administration and persisting 1 or 2 days* (general feeling of discomfort or illness); *myalgia starting 6 to 12 hours after administration and persisting 1 or 2 days* (aches or pains in muscles); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest; wheezing) [nasal mist]; *anaphylactic reaction* (most likely to residual egg protein in the influenza virus vaccine; difficulty in breathing or swallowing; hives; itching, especially of feet or hands; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *Guillain-Barré syndrome.*

Insulin (Systemic)

Commercial name(s): *Humulin 10/90; Humulin 20/80; Humulin 30/70; Humulin 40/60; Humulin 50/50; Humulin 70/30; Humulin 70/30 Pen; Humulin L; Humulin N; Humulin N Pen; Humulin R; Humulin R, Regular U-500 (Concentrated); Humulin U; Humulin-L; Humulin-N; Humulin-R; Humulin-U; Lente; Lente Iletin; Lente Iletin II; NPH Iletin; NPH Iletin II; NPH Purified Insulin; Novolin 70/30; Novolin 70/30 PenFill; Novolin 70/30 Prefilled; Novolin L; Novolin N; Novolin N PenFill; Novolin N Prefilled; Novolin R;*

Novolin R PenFill; Novolin R Prefilled; Novolin ge 10/90 Penfill; Novolin ge 20/80 Penfill; Novolin ge 30/70; Novolin ge 30/70 Penfill; Novolin ge 40/60 Penfill; Novolin ge 50/50 Penfill; Novolin ge Lente; Novolin ge NPH; Novolin ge NPH Penfill; Novolin ge Toronto; Novolin ge Toronto Penfill; Novolin ge Ultralente; Regular (Concentrated) Iletin II, U-500; Regular Iletin II; Regular Insulin; Velosulin BR; Velosulin Human.

Category: Antidiabetic agent; Diagnostic aid (pituitary growth hormone reserve).

Conventional indications: Diabetes, type 1; Diabetes, type 2; Diabetes mellitus, gestational (GDM); Diabetes mellitus, malnutrition-related; Diabetes mellitus, other, associated with certain conditions or syndromes [such as: Pancreatic disease (congenital absence of the pancreatic islets, transient diabetes of the newborn, functional immaturity of insulin secretion in the neonate, or cystic fibrosis); endocrine disease (endocrine overactivity due to Cushing's syndrome, hyperthyroidism, pheochromocytoma, somatostatinoma, or aldosteronoma; or endocrine underactivity due to hypoparathyroidism-hypocalcemia, type I isolated growth hormone deficiency, or multitropic pituitary deficiency); or genetic syndromes, including inborn errors of metabolism (glycogen-storage disease type I or insulin-resistant syndromes, such as muscular dystrophies, late onset proximal myopathy, and Huntington's chorea)]; Nephropathy, diabetic (prophylaxis); Neuropathy, diabetic (prophylaxis); Retinopathy, diabetic (prophylaxis); Growth hormone deficiency (diagnosis); Hyperglycemia during intravenous nutrition in low birth weight infants (treatment).

Primary Actions or Pathogenetic Symptoms

FACE: *edema* (swelling of face).

EXTREMITIES: *edema* (swelling of fingers, feet, or ankles).

GENERALITIES: *hypoglycemia, mild to severe, including nocturnal hypoglycemia* (anxiety; behavior change similar to drunkenness; blurred vision; cold sweats; confusion; cool, pale skin; difficulty in concentrating; drowsiness; excessive hunger; fast heartbeat; headache; nausea; nervousness; nightmares; restless sleep; shakiness; slurred speech; unusual tiredness or weakness; coma; seizures); **weight gain**; *lipoatrophy at injection site* (depression of the skin at the injection site); *lipohypertrophy at injection site* (thickening of the skin at the injection site).

DIAGNOSTIC TESTS: *hypoglycemia, mild to severe, including nocturnal hypoglycemia* (anxiety; behavior change similar to drunkenness; blurred vision; cold sweats; confusion; cool, pale skin; difficulty in concentrating; drowsiness; excessive hunger; fast heartbeat; headache; nausea; nervousness; nightmares; restless sleep; shakiness; slurred speech; unusual tiredness or weakness; coma; seizures).

Secondary Actions or Rebound Effects: *hyperglycemia, rebound* (from 1/2 to 24 hours after moderate to severe hypoglycemia [Somogyi phenomenon]).

Insulin Aspart (Systemic)

Commercial name(s): *NovoLog.*

Category: Antidiabetic agent.

Conventional indications: Diabetes mellitus, type 1 (treatment adjunct); Diabetes mellitus, type 2 (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

SKIN: *pruritus* (itching skin); *rash*.

GENERALITIES: *hypoglycemia* (anxiety; behavior change similar to drunkenness; blurred vision; cold sweats; coma; confusion; depression; difficulty in concentrating; dizziness or lightheadedness; drowsiness; excessive hunger; fast heartbeat; headache; irritability or abnormal behavior; nervousness; nightmares; restless sleep; seizures; shakiness; slurred speech; tingling in the hands, feet, lips, or tongue); *allergy, local* (itching, redness, or swelling at injection site); *allergy, systemic* (decrease in blood pressure; rapid pulse; shortness of breath; skin rash or itching over the entire body; sweating; wheezing); *hypokalemia* (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); *injection site reaction* (bleeding; blistering; burning; coldness; discoloration of skin; feeling of pressure; hives; infection; inflammation; itching; lumps; numbness; pain; rash; redness; scarring; soreness; stinging; swelling; tenderness; tingling; ulceration; warmth); *lipodystrophy* (depression of the skin; indentation of the skin).

DIAGNOSTIC TESTS: *hypoglycemia*; *hypokalemia*.

Insulin Detemir (Systemic)

Commercial name(s): *Levemir*.

Category: Antidiabetic agent.

Conventional indications: Diabetes mellitus, type 1 (treatment adjunct); Diabetes mellitus, type 2 (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

SKIN: *pruritus* (itching skin); *rash*.

GENERALITIES: *hypoglycemia* (anxiety; blurred vision; chills; cold sweats; coma; confusion; cool pale skin; depression; dizziness; fast heartbeat; headache; increased hunger; nausea; nervousness; nightmares; seizures; shakiness; slurred speech; unusual tiredness or weakness); *allergic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *anaphylactic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *edema* (swelling); *hypersensitivity* (fast heartbeat; fever; hives; itching; irritation; hoarseness; joint pain; stiffness or swelling; rash; redness of skin; shortness of breath; swelling of eyelids, face, lips, hands, or feet; tightness in chest; troubled breathing or swallowing; wheezing); *injection site reaction* (bleeding, blistering, burning, coldness, discoloration of skin; feeling of pressure, hives, infection, inflammation, itching, lumps,

numbness, pain, rash, redness, scarring, soreness, stinging, swelling, tenderness, tingling, ulceration, or warmth at site); *lipodystrophy* (redistribution or accumulation of body fat); *sodium retention* (decrease in amount of urine; noisy, rattling breathing; shortness of breath; swelling of fingers, hands, feet, or lower legs; troubled breathing at rest; weight gain); *weight gain*.

DIAGNOSTIC TESTS: *hypoglycemia*.

Insulin Glargine (Systemic)

Commercial name(s): *Lantus*.

Category: Antidiabetic agent.

Conventional indications: Diabetes mellitus (treatment).

Primary Actions or Pathogenetic Symptoms

FACE: *edema* (bloating or swelling of face).

EXTREMITIES: *edema* (bloating or swelling of hands, lower legs, and/or feet).

GENERALITIES: *hypoglycemia* (anxiety; behavior change similar to drunkenness; blurred vision; cold sweats; coma; confusion; cool, pale skin; difficulty in concentrating; dizziness or lightheadedness; drowsiness; excessive hunger; fast heartbeat; headache; nausea; nervousness; nightmares; restless sleep; seizures; shakiness; slurred speech; tingling in the hands, feet, lips, or tongue); *allergy, systemic* (decrease in blood pressure; rapid pulse; shortness of breath; skin rash or itching over the entire body; sweating; wheezing; may be life-threatening); *injection site pain*; *allergy, local* (itching, redness, or swelling at injection site); *edema* (bloating or swelling of face, hands, lower legs, and/or feet; rapid weight gain); *lipoatrophy* (depression of the skin at injection site); *lipohypertrophy* (thickening of the skin at injection site).

DIAGNOSTIC TESTS: *hypoglycemia*.

Insulin Glulisine (Systemic)

Commercial name(s): *Apidra*.

Category: Antidiabetic agent.

Conventional indications: Diabetes mellitus, type 1 (treatment adjunct); Diabetes mellitus, type 2 (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

SKIN: *pruritus* (itching skin); *rash*.

GENERALITIES: *hypoglycemia* (anxiety; blurred vision; chills; cold sweats; coma; confusion; depression; dizziness; fast heartbeat; headache; increased hunger; nausea; nervousness; nightmares; seizures; shakiness; slurred speech; unusual tiredness or weakness); *allergy, local* (itching, redness, or swelling at injection site); *allergy, systemic* (decrease in blood pressure; rapid pulse; shortness of breath; skin rash or itching over the entire body; sweating; wheezing); *injection site reaction* (bleeding, blistering, burning, coldness, discoloration of skin; feeling of pressure; hives; infection, inflammation, itching,

lumps, numbness, pain, rash, redness, scarring, soreness, stinging, swelling, tenderness, tingling, ulceration, or warmth at site); lipodystrophy (redistribution or accumulation of body fat).

DIAGNOSTIC TESTS: *hypoglycemia*.

Insulin Lispro (Systemic)

Commercial name(s): *Humalog*.

Category: Antidiabetic agent.

Conventional indications: Diabetes mellitus (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

GENERALITIES: *hypoglycemia* (anxiety; behavior change similar to drunkenness; blurred vision; cold sweats; coma; confusion; depression; difficulty in concentrating; dizziness or lightheadedness; drowsiness; excessive hunger; fast heartbeat; headache; irritability or abnormal behavior; nervousness; nightmares; restless sleep; seizures; shakiness; slurred speech; tingling in the hands, feet, lips, or tongue); allergy, local (itching, redness, or swelling at injection site); allergy, systemic (decrease in blood pressure; rapid pulse; shortness of breath; skin rash or itching over the entire body; sweating; wheezing; may be life-threatening); hypokalemia (dryness of mouth ; increased thirst; irregular heartbeat; mood or mental changes; muscle cramps or pain; nausea or vomiting; unusual tiredness or weakness; weak pulse); lipoatrophy at injection site (depression of the skin at injection site); lipohypertrophy at injection site (thickening of the skin at injection site); *hypoglycemia, nocturnal*.

DIAGNOSTIC TESTS: *hypoglycemia*; hypokalemia.

Interferon Alfacon-1 (Systemic)

Commercial name(s): *Infergen*.

Category: Biological response modifier.

Conventional indications: Hepatitis, chronic, active (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety*; *depression* (may include suicidal ideation or suicide attempt).

VERTIGO: *dizziness*.

HEAD: alopecia (hair loss).

VISION: *abnormal vision*; *loss of vision*.

THROAT: *pharyngitis* (sore throat).

EXTERNAL THROAT: *hypothyroidism*.

STOMACH: *anorexia* (decreased appetite); *dyspepsia* (heartburn; indigestion); *nausea*; *vomiting*.

ABDOMEN: *pain, abdominal*.

RECTUM: *diarrhea*.

COUGH: *coughing*.

CHEST: *heartbeat, irregular; pain, chest.*

EXTREMITIES: myalgia.

CHILL: chills.

FEVER: fever.

SKIN: *alopecia* (hair loss).

GENERALITIES: **erythema, injection** (redness at site of injection); **flu-like syndrome** (aching muscles; fever and chills; headache; general feeling of discomfort or illness; pain in back or joints; unusual tiredness or weakness); **leukopenia; neurotoxicity** (confusion; mental depression; nervousness; trouble in sleeping; trouble in thinking or concentrating) ; **thrombocytopenia; alopecia** (hair loss); *heartbeat, irregular; hypoesthesia* (numbness or tingling of fingers, toes, or face); *paresthesia* (numbness or tingling of fingers, toes, or face); *allergic reaction* (skin rash, hives, or itching); *hypothyroidism*; myalgia.

DIAGNOSTIC TESTS: **leukopenia; thrombocytopenia; antibodies, positive binding, development of**; alanine aminotransferase (ALT [SGPT]), aspartate aminotransferase (AST [SGOT]), and lactate dehydrogenase (LDH), increases in.

Interferon, Beta-1a (Systemic)

Commercial name(s): *Avonex; Rebif.*

Category: Multiple sclerosis (MS) therapy agent; Biological response modifier.

Conventional indications: Multiple sclerosis, relapsing-remitting (treatment); Condyloma acuminatum (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental, especially with suicidal ideation* (mood changes, especially with thoughts of suicide); *psychiatric disorders* (mental depression; confusion; mood or other mental changes).

VERTIGO: *dizziness; syncope* (fainting).

HEAD: **headache; alopecia** (hair loss).

EYE: *herpes simplex* (painful cold sores or blisters on eyes).

EAR: *otitis media* (earache).

HEARING: *decreased hearing.*

NOSE: *herpes simplex* (painful cold sores or blisters on nose); *sinusitis* (headache; stuffy nose).

FACE: *herpes simplex* (painful cold sores or blisters on lips).

MOUTH: *speech problems; edema, orolingual* (swelling of the mouth or throat; tightness in throat; trouble breathing).

THROAT: *edema, orolingual* (swelling of the mouth or throat; tightness in throat; trouble breathing).

EXTERNAL THROAT: *hyperthyroidism* (nervousness; sensitivity to heat; sweating; trouble sleeping; weight loss); *hypothyroidism* (constipation; depressed mood; dry skin and hair; feeling cold; hair loss; hoarseness or husky voice; muscle cramps and stiffness; slowed heartbeat; weight gain; unusual tiredness or weakness).

STOMACH: **dyspepsia** (heartburn; acid indigestion; sour stomach); **nausea**; *anorexia* (loss of appetite).

ABDOMEN: *pain, abdominal*; *failure, hepatic* (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin); *herpes zoster* (“shingles”; painful blisters on trunk of body); *injury, hepatic* (pruritus; dark urine; persistent anorexia; yellow eyes or skin; influenza [flu]-like symptoms; right upper quadrant tenderness).

RECTUM: **diarrhea**.

GENITALIA MALE: *herpes simplex* (painful cold sores or blisters on genitals).

GENITALIA FEMALE: *cyst, ovarian* (pelvic discomfort, aching, or heaviness); *vaginitis* (pain or discharge from the vagina); *herpes simplex* (painful cold sores or blisters on genitals).

RESPIRATION: *dyspnea* (troubled breathing); *infection, upper respiratory* (runny or stuffy nose; sneezing; sore throat).

CHEST: *pain, chest*; *cardiomyopathy* (chest discomfort or pain; difficulty breathing; dizziness; faintness; fast irregular or pounding heartbeat; shortness of breath; swelling of feet or lower legs; troubled breathing; unusual tiredness or weakness); *congestive heart failure* (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing); *herpes zoster* (“shingles”; painful blisters on trunk of body).

BACK: *herpes zoster* (“shingles”; painful blisters on trunk of body).

EXTREMITIES: **arthralgia** (joint pain); **myalgia** (muscle aches); *ataxia* (clumsiness or unsteadiness); *spasms, muscle*.

SLEEP: *insomnia* (trouble in sleeping).

CHILL: **chills**.

FEVER: **fever**.

SKIN: *alopecia* (hair loss); *nevi* (skin lesions); *urticaria* (hives or itching); *herpes simplex* (painful cold sores or blisters on lips, nose, eyes, or genitals); *herpes zoster* (“shingles”; painful blisters on trunk of body); *rash*; *rash, vesicular* (redness, blistering, peeling, or loosening of the skin).

GENERALITIES: **anemia** (unusual bleeding or bruising; unusual tiredness or weakness); **arthralgia** (joint pain); **asthenia** (unusual tiredness or weakness); **infection** (fever; chills); **influenza-like syndrome**; **myalgia** (muscle aches); **pain**; *alopecia* (hair loss); *hypersensitivity reaction* (coughing; difficulty in swallowing; hives or itching; swelling of face, lips, or eyelids; wheezing or difficulty in breathing); *infection, upper respiratory* (runny or stuffy nose; sneezing; sore throat); *injection-site reactions* (redness; swelling; tenderness); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *seizures* (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); *spasms, muscle*; *vasodilation* (flushing); *anaphylaxis* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *hepatitis*,

autoimmune (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin) (rebound effect?); *hyperthyroidism* (nervousness; sensitivity to heat; sweating; trouble sleeping; weight loss); *hypothyroidism* (constipation; depressed mood; dry skin and hair; feeling cold; hair loss; hoarseness or husky voice; muscle cramps and stiffness; slowed heartbeat; weight gain; unusual tiredness or weakness); *malaise* (general feeling of discomfort or illness); *necrosis at the injection site* (with long term treatment); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *sinusitis* (headache; stuffy nose); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *thrombocytopenia, idiopathic* (unusual bleeding or bruising; bloody nose; heavier menstrual periods; pinpoint red spots on skin; black, tarry stools; blood in urine; black, tarry stools; unusual tiredness or weakness; fever; skin rash); *ulceration at the injection site* (with long term treatment).

DIAGNOSTIC TESTS: **anemia**; leukopenia; *pancytopenia*; *thrombocytopenia*; *thrombocytopenia, idiopathic*.

Interferon, Beta-1b (Systemic)

Commercial name(s): *Betaseron*.

Category: Multiple sclerosis (MS) therapy agent.

Conventional indications: Multiple sclerosis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: anxiety; nervousness; amnesia (loss of memory); *confusion*; *depression*, *mental*, *with suicidal ideation* (depression with thoughts of suicide).

VERTIGO: **dizziness**.

HEAD: **headache**; **migraine**; alopecia (hair loss).

EYE: *conjunctivitis* (red, itching, or swollen eyes).

VISION: abnormal vision (any change in vision).

NOSE: **sinusitis** (headache; stuffy nose).

MOUTH: *speech disorder* (problems in speaking).

EXTERNAL THROAT: *goiter* (dry, puffy skin; increased weight gain; swelling of front part of neck; changes in menstrual periods; decreased sexual ability in males; feeling cold).

STOMACH: vomiting.

ABDOMEN: **pain, abdominal**; pain, pelvic.

RECTUM: **constipation** (rebound effect?); **diarrhea**.

BLADDER: cystitis (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate); *urgency, urinary* (increased urge to urinate).

GENITALIA FEMALE: **dysmenorrhea or other menstrual disorders** (menstrual pain or other menstrual changes).

LARYNX AND TRACHEA: **laryngitis**.

RESPIRATION: dyspnea (troubled breathing).

CHEST: palpitations (irregular or pounding heartbeat); *pain, breast; tachycardia* (fast or racing heartbeat); *fibrocystic breast* (benign lumps in breast); *neoplasm, breast* (abnormal growth in breast).

EXTREMITIES: myalgia (muscle pain); *vascular disorder, peripheral* (cold hands and feet); *hypertonia* (increased muscle tone).

SLEEP: somnolence (drowsiness).

CHILL: chills.

FEVER: fever.

PERSPIRATION: sweating increased.

SKIN: alopecia (hair loss).

GENERALITIES: asthenia (unusual tiredness or weakness); **hypersensitivity** (hives; itching; swelling); **hypertension** (high blood pressure); **inflammation at injection site** (redness; feeling of heat); **influenza-like syndrome; malaise** (general feeling of discomfort or illness); **myalgia** (muscle pain); **necrosis at injection site** (break in the skin, especially associated with blue-black discoloration, swelling, or drainage of fluid); **pain at injection site; palpitations** (irregular or pounding heartbeat); **sinusitis** (headache; stuffy nose); *alopecia* (hair loss); *lymphadenopathy* (swollen lymph glands); *pain; tachycardia* (fast or racing heartbeat); *vascular disorder, peripheral* (cold hands and feet); *weight gain, unusual; cyst* (abnormal growth filled with fluid or semisolid material); *edema, generalized* (bloating or swelling); *fibrocystic breast* (benign lumps in breast); *hemorrhage* (bleeding problems); *hyperkinesia* (hyperactivity); *hypertonia* (increased muscle tone); *injection site reactions* (redness, pain, swelling, discoloration); *neoplasm, breast* (abnormal growth in breast); *seizure; vasculitis; weight loss, unusual.*

Interferon, Gamma (Systemic)

Commercial name(s): *Actimmune.*

Category: Biological response modifier; Immunomodulator.

Conventional indications: Chronic granulomatous disease (treatment); Osteopetrosis (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness [CNS effect].

STOMACH: nausea; vomiting; appetite, loss of.

RECTUM: diarrhea.

URINE: proteinuria.

SKIN: rash.

GENERALITIES: flu-like syndrome (aching muscles; fever and chills; general feeling of discomfort or illness; headache; less frequently, back pain; joint pain); **leukopenia** (usually asymptomatic; rarely, fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **tiredness, unusual; weight loss; antibodies, neutralizing, development of** [Interferon Gamma-4a]; *hypotension; neurotoxicity* (confusion, parkinsonian symptoms [loss of balance control, mask-like face, shuffling walk, stiffness of arms or legs, trembling and shaking of hands and fingers, trouble in speaking or

swallowing], trouble in thinking or concentrating, trouble in walking) (not symptomatic); *neutropenia*; *thrombocytopenia* (usually asymptomatic; rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin).

DIAGNOSTIC TESTS: *leukopenia* (usually asymptomatic; rarely, fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *antibodies, neutralizing, development of* [Interferon Gamma-4a]; *hepatic enzymes, elevation of* (hepatitis, autoimmune?; rebound effect?); *neutropenia*; *proteinuria*; *thrombocytopenia*.

Interferons, Alpha (Systemic)

Commercial name(s): *Alferon N*; *Intron A*; *Roferon-A*; *Wellferon*.

Category: Biological response modifier; Antineoplastic.

Conventional indications: Leukemia, hairy cell (treatment) [Recombinant interferon alfa-2a, recombinant interferon alfa-2b, and interferon alfa-n1 (Ins)]; Condyloma acuminatum (treatment) [Recombinant interferon alfa-2b, interferon alfa-n1 (Ins), and interferon alfa-n3]; Hepatitis, chronic, active (treatment) [Recombinant interferon alfa-2a, recombinant interferon alfa-2b, interferon alfa-n1 (Ins), and interferon alfa-n3]; Hepatitis B, chronic (treatment) [Recombinant interferon alfa-2b]; Kaposi's sarcoma, AIDS-associated (treatment) [Recombinant interferon alfa-2a and recombinant interferon alfa-2b, Interferon alfa-n1 (Ins) and interferon alfa-n3]; Carcinoma, bladder (treatment) [Interferon alfa-n1 (Ins) and interferon alfa-n3]; Carcinoma, renal (treatment) or Leukemia, chronic myelocytic (treatment) [Recombinant interferon alfa-2a, recombinant interferon alfa-2b, interferon alfa-n1 (Ins), and interferon alfa-n3]; Papillomatosis, laryngeal (treatment) [Recombinant interferon alfa-2b, interferon alfa-n1 (Ins), and interferon alfa-n3]; Lymphomas, non-Hodgkin's (treatment), Malignant melanoma (treatment), Multiple myeloma (treatment), or Mycosis fungoides (treatment) [Recombinant interferon alfa-2a, recombinant interferon alfa-2b, interferon alfa-n1 (Ins), and interferon alfa-n3]; Carcinoid tumors (treatment); Carcinoma, ovarian, epithelial (treatment); Carcinoma, skin (treatment); Polycythemia vera (treatment) [Recombinant interferon alfa-2a and recombinant interferon alfa-2b]; Thrombocytosis, essential (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness* [CNS effect].

HEAD: *hair, loss of, partial*.

VISION: *blurred vision*.

MOUTH: *dryness; taste, change in or metallic; sores, cold; stomatitis* (sores in mouth and on lips).

EXTERNAL THROAT: *hyperthyroidism; hypothyroidism*.

STOMACH: *appetite, loss of; nausea; vomiting*.

ABDOMEN: *hepatotoxicity* (usually asymptomatic).

RECTUM: *diarrhea*.

CHEST: *cardiotoxicity* (chest pain, irregular heartbeat).

EXTREMITIES: *cramps, leg; neuropathy, peripheral* (numbness or tingling of fingers, toes, or face); *arthritis*.

PERSPIRATION: *sweating increased.*

SKIN: **hair, loss of, partial; rash;** *dryness; itching;* psoriasis, psoriasiform eruption [1].

GENERALITIES: **anemia** (usually asymptomatic); **flu-like syndrome** (aching muscles, fever and chills, headache, general feeling of discomfort or illness; less frequently, joint pain, back pain); **hair, loss of, partial; leukopenia** (usually asymptomatic; rarely, fever or chills, cough or hoarseness, lower back or side pain, painful or difficult urination); **thrombocytopenia** (usually asymptomatic; rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); **tiredness, unusual; neuropathy, peripheral** (numbness or tingling of fingers, toes, or face); **neurotoxicity** (confusion, mental depression, nervousness, trouble in sleeping, trouble in thinking or concentrating); *anemia, hemolytic; arthritis; autoimmune disorders* (vasculitis, arthritis, hemolytic anemia, and erythematous syndrome); *erythematous syndrome; hyperthyroidism; hypothyroidism; ischemic attacks, transient* (headache, numbness or tingling in arms or legs, trouble speaking); *tachyphylaxis; vasculitis; weight loss.*

DIAGNOSTIC TESTS: **anemia; leukopenia; thrombocytopenia; anemia, hemolytic.**

Complementary Bibliography: [1] Kim GK, Del Rosso JQ. Drug-provoked psoriasis: is it drug induced or drug aggravated? Understanding pathophysiology and clinical relevance. *J Clin Aesthet Dermatol* 2010; **3**(1): 32-38.

Inulin (Systemic)

Commercial name(s): *Inulin from Jerusalem artichokes; Inulin USP 27.*

Category: Diagnostic aid (renal function).

Conventional indications: Renal function studies.

Primary Actions or Pathogenetic Symptoms

Inulin does not usually cause any side/adverse effects, although extremely large doses may cause osmotic diuresis.

Iobenguane, Radioiodinated (Systemic - Diagnostic)

Other commonly used names: Meta-iodobenzylguanidine; mIBG.

Category: Diagnostic aid, radioactive (adrenomedullary disorders; neuroendocrine tumors).

Conventional indications: Tumors, adrenal medulla (diagnosis); Tumors, carcinoid (diagnosis); Hyperplasia, adrenal medulla (diagnosis); Carcinoma, thyroid (diagnosis).

Primary Actions or Pathogenetic Symptoms

At present, there are no known side/adverse effects associated with the use of diagnostic dosages of I- or I-mIBG.

Iobenguane, Radioiodinated (Systemic - Therapeutic)

Other commonly used names: Meta-iodobenzylguanidine; mIBG.

Category: Antineoplastic.

Conventional indications: Carcinoid syndrome (treatment); Pheochromocytoma (treatment); Neuroblastoma (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: *nausea*.

SKIN: *flushing*.

GENERALITIES: *blood pressure, increase in, slight and transient; flushing; leukopenia and thrombocytopenia* (pale skin, sore throat and fever, unusual bleeding or bruising, unusual tiredness or weakness).

DIAGNOSTIC TESTS: *leukopenia and thrombocytopenia*.

Iodine (Topical)

Other Commonly used names: Iodine Tincture; Strong Iodine Tincture.

Category: Antibacterial (topical).

Conventional indications: Skin infections, bacterial, minor (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: nausea (when ingested); thirst, excessive (when ingested); vomiting (when ingested).

ABDOMEN: pain, abdominal (when ingested).

RECTUM: diarrhea (when ingested).

BLADDER: anuria (not passing urine) (when ingested).

FEVER: fever (when ingested).

SKIN: *dermatitis* (blistering, crusting, irritation, itching, or reddening of skin).

Iodine, Strong (Systemic)

Other commonly used names: Lugol's solution.

Category: Antihyperthyroid agent; Radiation protectant (thyroid gland); Iodine replenisher.

Conventional indications: Hyperthyroidism (treatment adjunct); Radiation protection, thyroid gland; Thyroid involution, preoperative (treatment adjunct); Thyrotoxic crisis (treatment adjunct); Iodine deficiency (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache, severe; symptoms of head cold*.

FACE: *angioedema* (swelling of the face, lips).

MOUTH: *burning of mouth; soreness of gums; taste, metallic; watering, increased; angioedema* (swelling of the tongue).

TEETH: *soreness of teeth*.

THROAT: *burning of throat; angioedema* (swelling of the throat).

EXTERNAL THROAT: *hypothyroidism*.

STOMACH: *irritation, gastric; nausea; pain; vomiting*.

RECTUM: *diarrhea*.

EXTREMITIES: *angioedema* (swelling of the arms, legs); *arthralgia* (joint pain).

SKIN: *urticaria* (hives).

GENERALITIES: *hypothyroidism; iodism* (burning of mouth or throat; gastric irritation; increased watering of mouth; metallic taste; severe headache; soreness of teeth and gums; symptoms of head cold); *arthralgia* (joint pain); *eosinophilia; swelling of lymph nodes; toxicity, potassium* (confusion; irregular heartbeat; numbness, tingling, pain, or weakness in hands or feet; unusual tiredness; weakness or heaviness of legs).

DIAGNOSTIC TESTS: *eosinophilia*.

Iodipamide (Systemic)

Commercial name(s): *Cholografin; Cholografin for Infusion*.

Category: Diagnostic aid, radiopaque (gallbladder disorders; biliary tract disorders).

Conventional indications: Cholangiography, intravenous; Cholecystography, intravenous.

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness; lightheadedness*.

HEAD: *headache*.

MOUTH: *watering of mouth, increased*.

STOMACH: *nausea; vomiting*.

ABDOMEN: *hepatotoxicity, severe* (abdominal pain or tenderness, fever, nausea and vomiting).

KIDNEYS: *nephropathy, obstructive uric acid, increased risk of* (in infants and young children, and in geriatric, azotemic, and dehydrated or debilitated patients); *toxicity, renal* (proteinuria, crystalluria, renal tubular acidosis).

URINE: *crystalluria* (blood in urine, lower back pain, pain or burning while urinating).

CHILL: *chills*.

PERSPIRATION: *sweating increased*.

GENERALITIES: *vasodilation, arteriolar* (feeling of warmth and flushing of skin); *hypotension, transient* (severe unusual tiredness or weakness; dizziness, nausea, pallor, and, rarely, circulatory collapse); *pseudo-allergic reaction* (skin rash or hives, swelling of face or skin, wheezing, tightness in chest, or troubled breathing); *anaphylactoid reactions*.

DIAGNOSTIC TESTS: *crystalluria*.

Iodixanol (Systemic)

Commercial name(s): *Visipaque 270; Visipaque 320*.

Category: Diagnostic aid, radiopaque (cardiac disease); Diagnostic aid, radiopaque (peripheral vascular disorders); Diagnostic aid, radiopaque (urinary tract disorders); Diagnostic aid, radiopaque contrast enhancer in computed tomography; Diagnostic aid, radiopaque (brain disorders).

Conventional indications: Angiocardigraphy; Angiography, Aortography, Arteriography or Venography [Intra-arterial injection]; Urography, excretory; Brain imaging, computed tomographic; Body imaging, computed tomographic.

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*; *syncope* (fainting).

HEAD: *headache*.

STOMACH: *nausea*; *vomiting*.

RECTUM: *diarrhea*.

CHEST: *angina pectoris* (chest pain); *arrythmias* (irregular heartbeat).

GENERALITIES: *edema*; *hypotension* (lightheadedness; unusual tiredness or weakness); *paresthesia* (tingling or burning sensation); *pseudoallergic reaction* (skin rash or hives; stuffy nose; troubled breathing); *heat and pain at injection site*.

Iodohippurate Sodium I 123 (Systemic)

Commercial name(s): *Nephropure*.

Category: Diagnostic aid, radioactive (renal disorders; urinary tract obstructions).

Conventional indications: Renography; Renal imaging, radionuclide.

Primary Actions or Pathogenetic Symptoms

VERTIGO: *fainting*.

STOMACH: *nausea*; *vomiting*.

SKIN: *allergic reaction* (skin rash, hives, or itching).

Iodohippurate Sodium I 131 (Systemic)

Commercial name(s): *Hippuran*; *Hipputope*.

Category: Diagnostic aid, radioactive (renal disorders; urinary tract obstructions).

Conventional indications: Renography; Renal imaging, radionuclide.

Primary Actions or Pathogenetic Symptoms

VERTIGO: *fainting*.

STOMACH: *nausea*; *vomiting*.

Iodoquinol (Oral-Local)

Commercial name(s): *Diodoquin*; *Diquinol*; *Yodoquinol*; *Yodoxin*.

Category: Antiprotozoal.

Conventional indications: Amebiasis, intestinal (treatment); Amebiasis, extraintestinal (treatment); Balantidiasis (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache*.

EYE: *atrophy, optic* (blurred vision or any change in vision); *neuritis, optic* (decreased vision or eye pain); *neuropathy, myelo-optic, subacute* (blurred vision or any change in vision, clumsiness or unsteadiness, increased weakness, or muscle pain).

EXTERNAL THROAT: *enlargement, thyroid gland* (swelling of neck).

STOMACH: *pain; nausea; vomiting*.

RECTUM: *diarrhea; itching of the rectal area*.

EXTREMITIES: *neuropathy, myelo-optic, subacute* (clumsiness or unsteadiness, increased weakness, or muscle pain); *neuropathy, peripheral* (numbness, tingling, pain, or weakness in hands or feet).

CHILL: *chills*.

FEVER: *fever*.

SKIN: *hypersensitivity* (skin rash, hives, or itching).

GENERALITIES: *hypersensitivity* (skin rash, hives, or itching); *neuropathy, myelo-optic, subacute* (blurred vision or any change in vision, clumsiness or unsteadiness, increased weakness, or muscle pain); *neuropathy, peripheral* (numbness, tingling, pain, or weakness in hands or feet).

Iofetamine I 123 (Systemic)

Commercial name(s): *Spectamine*.

Category: Diagnostic aid, radioactive (cerebrovascular disease).

Conventional indications: Brain imaging, radionuclide; Seizures (diagnosis); Dementia, Alzheimer-type (diagnosis).

Primary Actions or Pathogenetic Symptoms

GENERALITIES: *allergic reactions*.

Iohexol (Local)

Commercial name(s): *Omnipaque 140; Omnipaque 180; Omnipaque 210; Omnipaque 240; Omnipaque 300; Omnipaque 350*.

Category: Diagnostic aid, radiopaque (urinary tract disorders; uterus and fallopian tube disorders).

Conventional indications: Cystourethrography, retrograde; Hysterosalpingography.

Primary Actions or Pathogenetic Symptoms

STOMACH: *discomfort; pain; nausea; vomiting*.

ABDOMEN: *discomfort, abdominal; pain, abdominal*.

SLEEP: *drowsiness*.

FEVER: *fever*.

GENERALITIES: *pseudo-allergic reaction* (continuing chills, continuing fever, increased sweating, skin rash or hives, sneezing, swelling of face or skin, swelling of larynx, thickening of the tongue, wheezing, tightness in chest, or troubled breathing).

Iohexol (Systemic)

Commercial name(s): *Omnipaque 140; Omnipaque 180; Omnipaque 210; Omnipaque 240; Omnipaque 300; Omnipaque 350.*

Category: Diagnostic aid, radiopaque (central nervous system disorders); Diagnostic aid, radiopaque (cerebrospinal fluid disorders); Diagnostic aid, radiopaque (cardiac disease); Diagnostic aid, radiopaque (vascular disease); Diagnostic aid, radiopaque (urinary tract disorders); Diagnostic aid, radiopaque (peritoneal disorders); Diagnostic aid, radiopaque contrast enhancer in computed tomography; Diagnostic aid, radiopaque contrast enhancer adjunct in computed tomography; Diagnostic aid, radiopaque (biliary tract disorders); Diagnostic aid, radiopaque (joint disease); Diagnostic aid, radiopaque (gastrointestinal tract disorders).

Conventional indications: Intrathecal: Myelography (lumbar, thoracic, cervical, total columnar). Intravascular: Angiocardiology; Angiography; Aortography; Arteriography; Venography [Intravascular]; Urography, excretory; Herniography; Brain imaging, computed tomographic; Body imaging, computed tomographic. Intraductal: Pancreatography, endoscopic retrograde; Cholangiopancreatography, endoscopic retrograde. Intrasyovial: Arthrography. Oral: Abdominal imaging, computed tomographic, adjunct; Radiography, gastrointestinal.

Primary Actions or Pathogenetic Symptoms

STOMACH: pain and discomfort; nausea; vomiting.

ABDOMEN: pain and discomfort, abdominal.

KIDNEYS: pyelorenal distention (severe abdominal or stomach pain and discomfort, backache).

SLEEP: drowsiness.

FEVER: fever.

GENERALITIES: *pseudo-allergic reaction* (continuing chills, continuing fever, increased sweating, skin rash or hives, sneezing, swelling of face or skin, swelling of larynx, thickening of the tongue, wheezing, tightness in chest, or troubled breathing).

Iopamidol (Systemic)

Commercial name(s): *Isovue-128; Isovue-200; Isovue-250; Isovue-300; Isovue-370; Isovue-M 200; Isovue-M 300.*

Category: Diagnostic aid, radiopaque (brain disorders); Diagnostic aid, radiopaque (central nervous system disorders); Diagnostic aid, radiopaque (cerebrospinal fluid disorders); Diagnostic aid, radiopaque (cardiac disease); Diagnostic aid, radiopaque (vascular disease); Diagnostic aid, radiopaque contrast enhancer in computed tomography; Diagnostic aid, radiopaque (peritoneal disorders); Diagnostic aid, radiopaque (urinary tract disorders); Diagnostic aid, radiopaque (joint disease); Diagnostic aid, radiopaque (biliary tract disorders).

Conventional indications: Intrathecal: Myelography (lumbar, thoracic, cervical, and total columnar); Cisternography, computed tomographic (CT). Intravascular: Angiocardiography; Angiography; Aortography; Arteriography; Venography; Brain imaging, computed tomographic; Body imaging, computed tomographic; Urography, excretory; Herniography. Intraductal: Pancreatography, endoscopic retrograde; Cholangiopancreatography, endoscopic retrograde. Intrasynovial: Arthrography.

Primary Actions or Pathogenetic Symptoms

MIND: irritation, meningeal (stiffness of neck) [Intrathecal Administration]; *amnesia, global, transient*.

VERTIGO: dizziness [Intrathecal Administration]; *lightheadedness* [Intravascular Administration].

HEAD: headache, mild to severe [Intrathecal or Intravascular Administration]; **irritation, meningeal** (stiffness of neck) [Intrathecal Administration].

EYE: sensitivity to light, increased [Intrathecal Administration].

VISION: blurred vision [Intravascular Administration]; *changes in vision* [Intravascular Administration].

HEARING: buzzing [Intrathecal Administration]; *ringing* [Intrathecal Administration].

MOUTH: taste, unusual [Intravascular Administration].

EXTERNAL THROAT: irritation, meningeal (stiffness of neck) [Intrathecal Administration].

STOMACH: nausea, mild to moderate [Intrathecal or Intravascular Administration]; **vomiting, mild to moderate** [Intrathecal or Intravascular Administration]; *appetite, loss of* [Intrathecal Administration].

BLADDER: urination, difficult [Intrathecal Administration].

RESPIRATION: bronchospasm (severe wheezing or troubled breathing) [Intrathecal or Intravascular Administration].

CHEST: bradycardia; bronchospasm (severe wheezing or troubled breathing) [Intrathecal or Intravascular Administration]; *cardiotoxicity* [Intravascular Administration]; *edema, pulmonary* (severe wheezing or troubled breathing) [Intrathecal or Intravascular Administration]; *fibrillation, ventricular* (fast or irregular heartbeat) [Intravascular Administration]; *tachycardia, ventricular* (fast or irregular heartbeat) [Intravascular Administration].

BACK: ache, back [Intrathecal Administration].

EXTREMITIES: cramps, leg [Intrathecal Administration]; **pain, leg** [Intrathecal Administration]; *musculoskeletal effects* (involuntary movements; paralysis of legs) [Intrathecal Administration].

SLEEP: drowsiness [Intrathecal Administration].

PERSPIRATION: sweating increased [Intrathecal Administration].

GENERALITIES: irritation, meningeal (stiffness of neck) [Intrathecal Administration]; **vasodilation, arteriolar** (hot flashes or sudden feeling of warmth; pain or burning at injection site, mild) [Intravascular Administration]; *tiredness or weakness, unusual* [Intrathecal Administration]; *bradycardia; heat on injection; hypotension* (severe tiredness or weakness) [intrathecal or Intravascular Administration]; *musculoskeletal effects* (involuntary movements; paralysis of legs) [Intrathecal Administration]; *pain on injection;*

pseudo-allergic reaction (skin rash or hives; stuffy nose; swelling of face or skin; wheezing, tightness in chest, or troubled breathing); *seizures* [Intrathecal or Intravascular Administration]; *shock-like state* (in geriatric, azotemic, and dehydrated or debilitated patients) [Intravascular Administration]; *tachycardia, ventricular* (fast or irregular heartbeat) [Intravascular Administration].

DIAGNOSTIC TESTS: *cardiac hemodynamics, alterations in; electrocardiograms, alterations in; tachycardia, ventricular.*

Iopromide (Systemic)

Commercial name(s): *Ultravist 150; Ultravist 240; Ultravist 300; Ultravist 370.*

Category: Diagnostic aid, radiopaque (cardiac disease; vascular disease; urinary tract disorders); Diagnostic aid, radiopaque contrast enhancer in computed tomography.

Conventional indications: Arteriography; Aortography; Angiography; Venography; Urography, excretory; Brain imaging, computed tomographic; Body imaging, computed tomographic.

Primary Actions or Pathogenetic Symptoms

MIND: *confusion.*

VERTIGO: *dizziness; syncope* (fainting).

HEAD: *headache.*

MOUTH: *taste, changes in.*

STOMACH: *nausea; vomiting.*

BLADDER: *retention, urinary* (difficult urination); *urgency, urinary* (frequent urination).

CHEST: *block, atrioventricular (AV)* (unusual weakness, pounding heartbeat, troubled breathing, or fainting); *bradycardia* (slow heartbeat); *thrombosis, coronary.*

SLEEP: *drowsiness.*

SKIN: *flushing; warmth, unusual.*

GENERALITIES: *bleeding at injection site; bradycardia* (slow heartbeat); *flushing; hypertension; hypotension* (unusual tiredness or weakness); *pain at injection site; paresthesias* (tingling, burning, or prickly sensations); *pseudo-allergic reaction* (skin rash or hives; stuffy nose; swelling of face or skin; swelling of the tongue; wheezing, tightness in chest or troubled breathing).

Iothalamate (Local)

Commercial name(s): *Cysto-Conray; Cysto-Conray II*

Category: Diagnostic aid, radiopaque (urinary tract disorders).

Conventional indications: Cystography, retrograde; Cystourethrography, retrograde; Pyelography, retrograde.

Primary Actions or Pathogenetic Symptoms

GENERALITIES: *pseudo-allergic reaction* (chills; fever; skin rash or hives; sneezing; sweating; swelling of face or skin; swelling of the larynx; wheezing, tightness in chest, or troubled breathing).

Iothalamate (Systemic)

Commercial name(s): *Angio-Conray; Conray; Conray-30; Conray-325; Conray-400; Conray-43; Conray-60; Vascoray.*

Category: Diagnostic aid, radiopaque (cardiac disease) [Iothalamate Meglumine and Iothalamate Sodium Injection; Iothalamate Sodium Injection]; Diagnostic aid, radiopaque (vascular disease) [Iothalamate Meglumine Injection; Iothalamate Meglumine and Iothalamate Sodium Injection; Iothalamate Sodium Injection]; Diagnostic aid, radiopaque (biliary tract disorders) [Iothalamate Meglumine Injection]; Diagnostic aid, radiopaque (pancreas disease) [Iothalamate Meglumine Injection]; Diagnostic aid, radiopaque (brain disorders) [Iothalamate Meglumine Injection; Iothalamate Meglumine and Iothalamate Sodium Injection; Iothalamate Sodium Injection]; Diagnostic aid, radiopaque contrast enhancer in computed tomography (CT) [Iothalamate Meglumine Injection; Iothalamate Meglumine and Iothalamate Sodium Injection; Iothalamate Sodium Injection]; Diagnostic aid, radiopaque (urinary tract disorders) [Iothalamate Meglumine Injection; Iothalamate Meglumine and Iothalamate Sodium Injection; Iothalamate Sodium Injection]; Diagnostic aid, radiopaque (joint disease) [Iothalamate Meglumine Injection].

Conventional indications: Intravascular: Angiocardiography [Iothalamate meglumine and iothalamate sodium injection]; Angiography; Arteriography; Venography; Aortography [Iothalamate meglumine and iothalamate sodium injection]; Body imaging, computed tomographic [Iothalamate meglumine injection and iothalamate sodium injection]; Brain imaging, computed tomographic [Iothalamate meglumine injection, iothalamate meglumine and iothalamate sodium injection]; Urography, excretory [Iothalamate meglumine injection, iothalamate meglumine and iothalamate sodium injection]; Splenoportography. Intraductal: Cholangiography, direct, operative [Iothalamate meglumine injection]; Cholangiography, direct, postoperative T-tube [Iothalamate meglumine injection]; Cholangiography, percutaneous transhepatic [Iothalamate meglumine injection]; Cholangiopancreatography, endoscopic retrograde [Iothalamate meglumine injection]. Intrasyovial: Arthrography [Iothalamate meglumine injection].

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; depression, mental.*

VERTIGO: *dizziness, lightheadedness.*

HEAD: *headache.*

VISION: *changes in vision; blindness, cortical, temporary* (vision returns within 24 to 48 hours).

MOUTH: *swelling of salivary glands, severe* [Intravascular Administration]; *watering, increased.*

STOMACH: *nausea; vomiting.*

KIDNEYS: *failure, renal, acute* (especially in patients with diabetic nephropathy and in susceptible nondiabetic patients) [Intravascular Administration]; *impairment, renal function, slightly and temporarily* [Intravascular Administration].

LARYNX AND TRACHEA: *swelling of the larynx* [Intravascular Administration]

RESPIRATION: *bronchospasm* (severe wheezing or troubled breathing) [Intravascular Administration]; *breathing, difficulty in*.

CHEST: *bradycardia* (slow heartbeat) [Intravascular Administration]; *bronchospasm* (severe wheezing or troubled breathing) [Intravascular Administration]; *cardiotoxicity* [Intravascular Administration]; *contractile force, cardiac, decreased* [Intravascular Administration]; *edema, pulmonary* (severe wheezing or troubled breathing) [Intravascular Administration]; *fibrillation, ventricular* (irregular heartbeat) [Intravascular Administration]; *congestive heart failure, severe* (in patients who have had multiple contrast studies within 72 hours, those receiving large volumes of contrast agent, and those with elevated uric acid levels).

EXTREMITIES: *pain, joint, or exacerbation of existing pain* [intrasynovial Administration]; *weakness in hands or feet*.

CHILL: *chills*.

PERSPIRATION: *increased sweating*.

SKIN: *vasodilation, arteriolar* (unusual warmth and flushing of skin) [Intravascular Administration].

GENERALITIES: *pain at injection site* [Intravascular Administration]; *pain, joint, or exacerbation of existing pain* [intrasynovial Administration]; *redness at injection site* [Intravascular Administration]; *swelling at injection site* [Intravascular Administration]; *vasodilation, arteriolar* (unusual warmth and flushing of skin) [Intravascular Administration]; *bradycardia* (slow heartbeat) [Intravascular Administration]; *convulsions* (especially in patients with convulsive disorders) [Intravascular Administration]; *fibrillation, ventricular* (irregular heartbeat) [Intravascular Administration]; *hypotension* (severe unusual tiredness or weakness) [Intravascular Administration]; *numbness; pain; pseudo-allergic reaction* (skin rash or hives; swelling of face or skin; swelling of the larynx; wheezing, tightness in chest, or troubled breathing); *psychosomatic reaction* (changes in vision, chills, CNS effects [numbness, tingling, pain, or weakness in hands or feet], confusion, dizziness or lightheadedness, headache, increased sweating, increased watering of the mouth, nausea or vomiting, unusual tiredness or weakness); *tingling; tiredness or weakness, unusual; anaphylactoid reaction; death* (during injection or 5 to 10 minutes after, mainly due to cardiac arrest, especially in patients with cardiovascular disease); *dehydration; feeling of tiredness, unusual; shock-like state*.

DIAGNOSTIC TESTS: *fibrillation, ventricular*.

Ioversol (Systemic)

Commercial name(s): *Optiray 160; Optiray 240; Optiray 300; Optiray 320; Optiray 350*.

Category: Diagnostic aid, radiopaque (cardiac disease); Diagnostic aid, radiopaque (vascular disease); Diagnostic aid, radiopaque (urinary tract disorders); Diagnostic aid, radiopaque contrast enhancer in computed tomography; Diagnostic aid, radiopaque

(peritoneal disorders); Diagnostic aid, radiopaque (biliary tract disorders); Diagnostic aid, radiopaque (joint disease).

Conventional indications: Intravascular: Angiocardiology; Angiography; Aortography; Arteriography; Venography; Urography, excretory; Brain imaging, computed tomographic; Body imaging, computed tomographic; Herniography. Intraductal: Pancreatography, endoscopic retrograde; Cholangiopancreatography, endoscopic retrograde. Intrasyovial: Arthrography.

Primary Actions or Pathogenetic Symptoms

MIND: *amnesia, global, transient* (after cerebral angiography; Administration into the ascending aorta); *confusion* [Intravascular Administration]; *hallucinations* [Intravascular Administration].

VERTIGO: *dizziness* [Intravascular Administration]; *lightheadedness* [Intravascular Administration].

HEAD: *headache, mild to moderate* [Intravascular Administration]; *infarct, cerebral* (severe headache, blurred vision) [Intravascular Administration].

VISION: *blurred vision* [Intravascular Administration]; *changes in vision* [Intravascular Administration].

NOSE: *sneezing* [Intravascular Administration]; *stuffy nose* [Intravascular Administration]

STOMACH: *nausea, mild to moderate* [Intravascular Administration]; *vomiting, mild to moderate* [Intravascular Administration].

COUGH: *coughing* [Intravascular Administration].

CHEST: *angina pectoris* (chest pain) [Intravascular Administration]; *arrhythmia, transient* [Intravascular Administration]; *bradycardia* (slow or irregular heartbeat) [Intravascular Administration].

EXTREMITIES: *pain, joint, or exacerbation of existing pain; swelling at joint* [Intravascular Administration].

GENERALITIES: *feeling of warmth, unusual* [Intravascular Administration]; *pain, joint, or exacerbation of existing pain* [Intravascular Administration]; *swelling at joint* [Intravascular Administration]; *anaphylactoid reaction; arrhythmia, transient* [Intravascular Administration]; *bradycardia* (slow or irregular heartbeat) [Intravascular Administration]; *dehydration, exacerbated* (in some cases resulting in a shock-like state, following Intravascular Administration of ioversol in geriatric, azotemic, and dehydrated or debilitated patients); *heat on inection; hypertension* [Intravascular Administration]; *hypotension* (severe and unusual tiredness or weakness) [Intravascular Administration]; *pain on injection; pseudo-allergic reaction* (skin rash or hives, stuffy nose, swelling of face or skin, thickening of the tongue, wheezing, tightness in chest, or troubled breathing).

DIAGNOSTIC TESTS: *cardiac hemodynamics, alterations in; electrocardiograms, alterations in.*

Ioxaglate (Local)

Commercial name(s): *Hexabrix; Hexabrix-320.*

Category: Diagnostic aid, radiopaque (uterus and fallopian tube disorders).

Conventional indications: Hysterosalpingography.

Primary Actions or Pathogenetic Symptoms

STOMACH: discomfort; pain.

ABDOMEN: discomfort, abdominal; pain, abdominal.

FEVER: *fever*.

GENERALITIES: *anaphylactoid reaction; pseudo-allergic reaction* (increased sweating; skin rash or hives; sneezing; stuffy nose; swelling of face or skin; swelling of the larynx; thickening of the tongue; wheezing, tightness in chest, or troubled breathing).

Ioxaglate (Systemic)

Commercial name(s): *Hexabrix; Hexabrix-200; Hexabrix-320*.

Category: Diagnostic aid, radiopaque (cardiac disease; vascular disease; joint disease; urinary tract disorders; brain disorders).

Conventional indications: Intravascular: Angiocardiology; Angiography; Aortography; Arteriography; Venography; Urography, excretory; Brain imaging, computed tomographic; Body imaging, computed tomographic. Intrasyovial: Arthrography.

Primary Actions or Pathogenetic Symptoms

MIND: *amnesia, global, transient* (after cerebral angiography; Administration into the ascending aorta); *consciousness, loss of* [Intravascular Administration]; *depression, mental* (more likely to occur in cyanotic infants during angiocardiology with the administration of ioxaglate).

VERTIGO: *dizziness* [Intravascular Administration]; *lightheadedness* [Intravascular Administration].

HEAD: *headache* [Intravascular Administration].

VISION: *changes in vision* [Intravascular Administration].

STOMACH: *nausea* [Intravascular Administration]; *vomiting* [Intravascular Administration].

KIDNEYS: *failure, renal, acute* (especially in patients with diabetic nephropathy and in susceptible nondiabetic patients) [Intravascular Administration]; *function, renal, impaired, slightly and temporarily* [Intravascular Administration].

LARYNX AND TRACHEA: *swelling of larynx* [Intravascular Administration].

RESPIRATION: *bronchospasm* (severe wheezing or troubled breathing) [Intravascular Administration]; *difficulty in breathing* (more likely to occur in cyanotic infants during angiocardiology with the administration of ioxaglate).

CHEST: *bradycardia* (slow heartbeat) [Intravascular Administration]; *bronchospasm* (severe wheezing or troubled breathing) [Intravascular Administration]; *cardiotoxicity* [Intravascular Administration]; *contractile force, cardiac, decreased* [Intravascular Administration]; *edema, pulmonary* (severe wheezing or troubled breathing) [Intravascular Administration]; *fibrillation, ventricular* (irregular heartbeat) [Intravascular Administration]; *pain, chest* [Intravascular Administration]; *arrest, cardiac* [Intravascular Administration]; *heartbeat, slow or irregular* (more likely to occur in cyanotic infants

during angiocardiology with the Administration of ioxaglate); *tachyarrhythmias, ventricular*.

EXTREMITIES: *pain, joint, or exacerbation of existing pain* [Intrasynovial Administration]; *numbness in hands or feet* [Intravascular Administration]; *pain in hands or feet* [Intravascular Administration]; *tingling in hands or feet* [Intravascular Administration]; *trembling* [Intravascular Administration]; *weakness in hands or feet* [Intravascular Administration].

CHILL: *chills* [Intravascular Administration].

PERSPIRATION: *sweating, increased* [Intravascular Administration].

SKIN: *flushing* [Intravascular Administration]; *warmth* [Intravascular Administration].

GENERALITIES: *flushing* [Intravascular Administration]; *bradycardia* (slow heartbeat) [Intravascular Administration]; *convulsions* (more likely to occur in infants than in other age groups with the Administration of Ioxaglate, especially after repeated Administration) [Intravascular Administration]; *fibrillation, ventricular* (irregular heartbeat) [Intravascular Administration]; *hypotension* (slow heartbeat; severe tiredness or weakness) [Intravascular Administration]; *pain at injection site* [Intravascular Administration]; *pseudo-allergic reaction* (coughing or choking; nasal congestion; skin rash or hives; stuffy nose; swelling of face or skin; thickening of the tongue; wheezing, tightness in chest, or troubled breathing); *redness at injection site* [Intravascular Administration]; *swelling at injection site* [Intravascular Administration]; *tiredness or weakness, unusual* (more likely to occur in cyanotic infants during angiocardiology with the Administration of Ioxaglate) [Intravascular Administration]; *trembling* [Intravascular Administration]; *anaphylactoid reaction; collapse, hypotensive* (following urography); *dehydration, exacerbated; heat on injection; shock* (following urography); *tachyarrhythmias, ventricular*.

DIAGNOSTIC TESTS: *fibrillation, ventricular; tachyarrhythmias, ventricular*.

Ioxilan (Systemic)

Commercial name(s): *Oxilan 300; Oxilan 350*.

Category: Diagnostic aid, radiopaque (cardiac disease); Diagnostic aid, radiopaque (peripheral vascular disorders); Diagnostic aid, radiopaque contrast enhancer in computed tomography; Diagnostic aid, radiopaque (urinary tract disorders); Diagnostic aid, radiopaque (brain disorders).

Conventional indications: Arteriography; Angiography; Aortography; Urography, excretory; Brain imaging, computed tomographic; Body imaging, computed tomographic.

Primary Actions or Pathogenetic Symptoms

VERTIGO: *syncope* (fainting).

HEAD: *headache*.

STOMACH: *nausea*.

BLADDER: *anuria* (decrease in amount of urine); *infection, urinary tract* (pain or burning while urinating).

KIDNEYS: *infection, urinary tract* (pain or burning while urinating).

CHEST: angina pectoris (chest pain); bradycardia (slow heartbeat); fibrillation, atrial (irregular heartbeat); tachycardia (rapid heartbeat).

FEVER: fever.

GENERALITIES: bradycardia (slow heartbeat); hypertension (dizziness; headaches, severe or continuing; increase in blood pressure); hypotension (unusual tiredness or weakness); paresthesia (tingling or burning sensation); pseudoallergic reaction (skin rash or hives; stuffy nose; troubled breathing); tachycardia (rapid heartbeat); heat on injection; pain on injection.

Ipecac (Oral-Local)

Category: Emetic.

Conventional indications: Toxicity, nonspecific (treatment).

Primary Actions or Pathogenetic Symptoms

EXTERNAL THROAT: aching, stiffness, and weakness of neck muscles.

STOMACH: cramps; nausea, continuing more than 30 minutes; pain; vomiting, continuing more than 30 minutes.

RECTUM: diarrhea.

RESPIRATION: troubled breathing.

CHEST: *toxicity, cardiac* (chronic use of ipecac among young women with anorexia nervosa, bulimia, and related eating disorders); heartbeat, fast or irregular.

EXTREMITIES: *myopathy, toxic* (chronic use of ipecac among young women with anorexia nervosa, bulimia, and related eating disorders); aching, stiffness, and weakness of muscles (especially those of the arms, and legs).

GENERALITIES: *death* (chronic use of Ipecac among young women with anorexia nervosa, bulimia, and related eating disorders); *myopathy, toxic* (chronic use of Ipecac among young women with anorexia nervosa, bulimia, and related eating disorders); aching, stiffness, and weakness of muscles; heartbeat, fast or irregular; tiredness or weakness, unusual.

Ipratropium (Inhalation-Local)

Commercial name(s): *Apo-Ipravent; Atrovent; Atrovent HFA; Kendral-Ipratropium*

Category: Bronchodilator.

Conventional indications: Bronchitis, chronic (treatment); Emphysema, pulmonary (treatment); Pulmonary disease, chronic obstructive, other (treatment); Asthma (treatment adjunct) Asthma (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness*.

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *angioedema* (swelling of eyelids); *burning eyes*; *glaucoma*, *narrow-angle*, *precipitation or worsening of* (when the spray came into contact with the eyes); *pain, eye, acute*.

VISION: *blurred vision*; *changes in vision*.

NOSE: *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

FACE: *angioedema* (swelling of face, lips).

MOUTH: *dryness*; *taste, unpleasant*.

STOMACH: *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); *nausea*.

ABDOMEN: *ileus*, *paralytic* (especially in patients with cystic fibrosis) (continuing constipation; lower abdominal pain or distention).

BLADDER: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *retention, urinary* (difficult urination).

KIDNEYS: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

RESPIRATION: *infection, upper respiratory tract* (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

COUGH: *cough*

CHEST: *bronchodilator*; *palpitations* (pounding heartbeat); *fibrillation, atrial* (fast or irregular heartbeat; dizziness; fainting); *tachycardia, supraventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations).

BACK: *pain, back*

PERSPIRATION: *sweating*

SKIN: *dermatitis, hypersensitivity-induced*; *rash*; *urticaria* (hives)

GENERALITIES: *infection, upper respiratory tract* (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *influenza-like symptoms* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *fibrillation, atrial* (fast or irregular heartbeat; dizziness; fainting); *hypersensitivity reactions, immediate* (urticaria, angioedema, rash, bronchospasm, anaphylaxis, and oropharyngeal edema); *palpitations* (pounding heartbeat); *tachycardia, supraventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *trembling*.

DIAGNOSTIC TESTS: *fibrillation, atrial*; *tachycardia, supraventricular*.

Secondary Actions or Rebound Effects: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *chronic obstructive pulmonary disease (COPD) exacerbation* (increased cough, purulent sputum, wheezing,

difficulty breathing); *bronchospasm, paradoxical; bronchospasm, increased* (increased wheezing; tightness in chest; difficulty in breathing).

Ipratropium (Nasal)

Commercial name(s): *Atrovent*.

Category: Anticholinergic (nasal).

Conventional indications: Rhinorrhea associated with allergic and nonallergic perennial rhinitis (treatment); Rhinorrhea associated with the common cold (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

EYE: *conjunctivitis* (redness of eyes); *glaucoma, angle-closure, precipitation or worsening of* (eye pain); *irritation; mydriasis* (when ipratropium inhalation aerosol was sprayed into the eyes; aerosol product is no longer available); *pain, eye* (when ipratropium inhalation aerosol was sprayed into the eyes; aerosol product is no longer available); *pressure, intraocular, increased* (when ipratropium inhalation aerosol was sprayed into the eyes; aerosol product is no longer available).

VISION: *blurred vision*.

HEARING: *tinnitus* (ringing or buzzing in ears).

NOSE: *burning; dryness, nasal; epistaxis* (nosebleeds); *itching; irritation*;

MOUTH: *dryness*.

THROAT: *dryness; pharyngitis* (sore throat).

STOMACH: *nausea*.

ABDOMEN: *obstruction, bowel* (pain or cramping in abdomen).

BLADDER: *retention, urinary* (difficult urination).

PROSTATE GLAND: *disorders, prostate* (painful or difficult urination).

CHEST: *bradycardia* (slow heartbeat); *palpitations* (irregular heartbeat); *tachycardia* (fast heartbeat).

GENERALITIES: *bradycardia* (slow heartbeat); *palpitations* (irregular heartbeat); *tachycardia* (fast heartbeat).

Secondary Actions or Rebound Effects: *congestion, nasal, increased; runny nose, increased*.

Ipratropium and Albuterol (Inhalation-Local)

Commercial name(s): *Combivent; DuoNeb*.

Category: Bronchodilator.

Conventional indications: Pulmonary disease, chronic obstructive (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness*.

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *angioedema* (swelling of the eyelids).

FACE: *angioedema* (swelling of the face, lips).

MOUTH: *dryness; edema, oropharyngeal* (swelling of the mouth or throat); *sense of taste, change in*.

THROAT: *edema, oropharyngeal* (swelling of the mouth or throat).

STOMACH: *nausea*.

COUGH: *coughing* (rebound effect?).

CHEST: *bronchodilator; discomfort, chest* (rebound effect?); *heartbeat, irregular; pain, chest; tachycardia* (fast heartbeat).

SKIN: *rash; urticaria* (hives).

GENERALITIES: *tachycardia* (fast heartbeat); *tremor*.

Secondary Actions or Rebound Effects: *bronchospasm, hypersensitivity-induced* (shortness of breath; wheezing); *bronchospasm, paradoxical* (shortness of breath; wheezing).

Irbesartan (Systemic)

Commercial name(s): *Avapro*.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; nervousness*.

VERTIGO: *dizziness*.

HEAD: *headache*.

FACE: *angioedema* (swelling on face, lips).

MOUTH: *angioedema* (swelling on tongue).

THROAT: *angioedema* (swelling on throat).

STOMACH: *dyspepsia* (belching; heartburn; stomach discomfort).

RECTUM: *diarrhea*.

RESPIRATION: *infection, upper respiratory* (cold symptoms).

CHEST: *bradycardia* (slow heartbeat); *tachycardia* (fast heartbeat).

EXTREMITIES: *pain, musculoskeletal* (muscle or bone pain).

SKIN: *urticaria* (hives or welts, itching, redness of skin, or skin rash).

GENERALITIES: *hypotension* (dizziness, light-headedness, or fainting); *fatigue* (unusual tiredness); *infection, upper respiratory* (cold symptoms); *pain, musculoskeletal* (muscle or bone pain); *hyperkalemia* (confusion, irregular heartbeat, numbness or tingling in hands, feet, or lips, difficult breathing, or weakness or heaviness of legs); *jaundice* (clay-colored stools, dark urine, itching, loss of appetite, stomach pain, yellow eyes or skin); *bradycardia* (slow heartbeat); *tachycardia* (fast heartbeat).

DIAGNOSTIC TESTS: *hyperkalemia*.

Irinotecan (Systemic)

Commercial name(s): *Camptosar*.

Category: Antineoplastic.

Conventional indications: Carcinoma, colorectal (treatment); Carcinoma, lung, non–small cell (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion*.

VERTIGO: **dizziness**; **syncope** (fainting); **vertigo** (dizziness or lightheadedness; feeling of constant movement of self or surroundings, sensation of spinning).

HEAD: **accident, cerebrovascular** (blurred vision; headache, sudden and severe; inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe); **alopecia** (loss of hair); **headache**; **infarct, cerebral** (blurred vision; confusion; numbness or tingling in face, arms, legs; severe headache; trouble speaking or walking).

EYE: *lacrimation*; *miosis*.

NOSE: **rhinitis** (runny nose).

MOUTH: **mucositis** (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth); **stomatitis** (sores, ulcers, or white spots on lips or in mouth); salivation, increased.

STOMACH: **anorexia** (loss of appetite; weight loss); **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); **nausea**; **vomiting**

ABDOMEN: **ascites** (stomach pain and bloating); **cramping, abdominal**; **enlargement, abdominal** (swelling of abdominal or stomach area; full or bloated feeling or pressure in the stomach); **flatulence** (bloated full feeling; excess air or gas in stomach or intestines; passing gas); **hepatomegaly** (right upper abdominal pain and fullness); **pain, abdominal**; **colitis** (stomach cramps; tenderness; pain; watery or bloody diarrhea; fever); *ulceration of the colon* (sometimes with bleeding).

RECTUM: **constipation**; **diarrhea**; **mucositis** (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth).

KIDNEYS: *failure, renal, acute* (lower back/side pain; decreased frequency/amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure); *impairment, renal* (lower back/side pain; decreased frequency/amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure).

RESPIRATION: **dyspnea** (shortness of breath or troubled breathing); *pneumonia* (chest pain; cough, fever or chills; sneezing; shortness of breath sore throat troubled breathing tightness in chest wheezing).

COUGH: **cough**.

CHEST: **angina pectoris** (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea); **arrest**,

heart (stopping of heart; no blood pressure or pulse; unconsciousness); **dysfunction, cardiac, mechanical** (dizziness; fainting; fast, slow, or irregular heartbeat); **dysrhythmias** (dizziness; fainting; fast, slow, or irregular heartbeat); **embolus, pulmonary** (anxiety; chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness); **infarct, myocardial** (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); **ischemia, myocardial** (chest pain or discomfort; nausea; pain or discomfort in arms, jaw, back or neck; shortness of breath; sweating; vomiting); **pneumonia** (chest pain; cough, fever or chills; sneezing; shortness of breath sore throat troubled breathing tightness in chest wheezing).

BACK: pain.

EXTREMITIES: embolus, lower extremity (pain in legs; redness or swelling of leg); **hand and foot syndrome** (blistering, peeling, redness, and/or swelling of palms of hands or bottoms of feet; numbness, pain, tingling, or unusual sensations in palms of hands or bottoms of feet); **vascular disorder, peripheral** (cold hands and feet).

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep); **somnolence** (sleepiness or unusual drowsiness).

CHILL: chills.

FEVER: fever; fever, neutropenic (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination; sore throat).

PERSPIRATION: sweating; diaphoresis.

SKIN: alopecia (loss of hair); **rash; vasodilation** (flushing); *flushing*.

GENERALITIES: alopecia (loss of hair); **anemia** (unusual tiredness or weakness, severe); **asthenia** (weakness); **death, sudden** (no pulse; no blood pressure; no breathing); **dysrhythmias** (dizziness; fainting; fast, slow, or irregular heartbeat); **edema** (swelling); **hypotension** (blurred vision; confusion; dizziness; faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); **infarct, cerebral** (blurred vision; confusion; numbness or tingling in face, arms, legs; severe headache; trouble speaking or walking); **infarct, myocardial** (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **infection, neutropenic** (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); **injury, accidental; ischemia** (chest pain or discomfort; irregular heartbeat; nausea or vomiting; pain in the shoulders, arms, jaw or neck, sweating); **ischemia, myocardial** (chest pain or discomfort; nausea; pain or discomfort in arms, jaw, back or neck; shortness of breath; sweating; vomiting); **jaundice** (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); **leukopenia; mucositis** (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth); **neutropenia; pain; thrombocytopenia** (black, tarry stools; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); **thrombophlebitis** (changes in skin color; pain; tenderness; swelling of foot or leg); **thrombophlebitis, deep** (changes in

skin color; pain; tenderness; swelling of foot or leg); **thrombosis** (severe headaches of sudden onset; sudden loss of coordination; pains in chest, groin, or legs, especially calves of legs; sudden onset of shortness of breath for no apparent reason; sudden onset of slurred speech; sudden vision changes); **thrombosis, arterial** (severe headaches of sudden onset; sudden loss of coordination; pains in chest, groin, or legs, especially calves of legs; sudden onset of shortness of breath for no apparent reason; sudden onset of slurred speech; sudden vision changes); **vascular disorder** (changes in skin color; cold hands and feet; pain, redness, or swelling in arm or leg); **vascular disorder, peripheral** (cold hands and feet); **vasodilation** (flushing); **weight loss**; *dehydration* (decreased urination; dizziness or lightheadedness, severe; dryness of mouth; fainting; increased thirst; wrinkled skin; associated with severe diarrhea and/or vomiting and may lead to renal impairment and/or acute renal failure); *hemorrhage* (bleeding gums; coughing up blood; difficulty in breathing or swallowing; dizziness; headache; increased menstrual flow or vaginal bleeding; nosebleeds; paralysis; prolonged bleeding from cuts; red or dark brown urine; red or black, tarry stools; shortness of breath); *allergic reactions, including anaphylactoid reactions* (fast, irregular or troubled breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath; skin rash, hives, and/or itching; tightness in chest and/or wheezing); *cholinergic syndrome* (abdominal cramping, rhinitis, increased salivation, myosis, lacrimation, flushing and diaphoresis); *flushing*; *life-threatening syndrome, potentially* (dyspnea, fever, and a reticulonodular pattern on chest radiograph); *sepsis, myelosuppression-related*.

DIAGNOSTIC TESTS: **anemia**; **leukopenia**; **neutropenia**; **thrombocytopenia**; *myelosuppression-related*.

Iron Supplements (Systemic)

Commercial name(s): *Apo-Ferrous Gluconate; Apo-Ferrous Sulfate; DexFerrum; DexIron; Femiron; Feosol Caplets; Feosol Tablets; Feostat; Feostat Drops; Fer-In-Sol Drops; Fer-In-Sol Syrup; Fer-Iron Drops; Fer-gen-sol; Feratab; Fergon; Fero-Gradumet; Ferodan Infant Drops; Ferodan Syrup; Ferospace; Ferra-TD; Ferralet; Ferralet Slow Release; Ferralyn Lanacaps; Ferretts; Ferrlecit; Fertinic; Fumasorb; Fumerin; Hemocyte; Hytanic; InFeD; Ircon; Jectofer; Mol-Iron; Neo-Fer; Nephro-Fer; Niferex; Niferex-150; Novofumar; Nu-Iron; Nu-Iron 150; Palafer; Simron; Slow Fe; Span-FF; Venofer.*

Category: Antianemic; Nutritional supplement (mineral).

Conventional indications: Iron deficiency anemia, hemodialysis-induced (treatment); Iron deficiency anemia (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: **dizziness** [parenteral use].

HEAD: **headache** [parenteral use].

VISION: *diplopia* (double vision) [parenteral use].

FACE: bluish-colored lips.

MOUTH: **taste, metallic** [parenteral use].

TEETH: *staining of teeth* (with liquid dosage forms) [oral use].

STOMACH: **cramping** [oral use]; **nausea**; **pain** [oral use]; **soreness** [oral use]; **vomiting**; heartburn; scarring, gastrointestinal.

ABDOMEN: **cramping, abdominal** [oral use]; **pain, abdominal** [oral use]; **pain, groin** [Parenteral use]; **soreness, abdominal** [oral use]; failure, hepatic; injury, hepatic; scarring, gastrointestinal.

RECTUM: **constipation** [oral use]; **diarrhea** [oral use].

STOOL: *dark green or black stools* [oral use].

URINE: *darkened urine* (iron sulfide formation following large doses) [oral use].

RESPIRATION: shallow and rapid breathing (due to acidosis).

CHEST: **heartbeat, fast** [Parenteral use]; **pain, chest** [Parenteral use]; heartbeat, weak and fast.

BACK: **ache, back** [parenteral use]; **pain, flank** [parenteral use].

EXTREMITIES: **cramps, leg** [Parenteral use]; **numbness of hands or feet** [Parenteral use]; **pain, muscle, hands or feet, or groin** [Parenteral use]; **tingling of hands or feet** [Parenteral use]; bluish-colored palms of hands.

NAILS: bluish-colored fingernails.

SLEEP: drowsiness.

CHILL: **chills** [parenteral use].

FEVER: **fever with increased sweating** [parenteral use].

PERSPIRATION: **increased sweating, with or without fever** [parenteral use].

SKIN: **discoloration, brown** [parenteral use]; **flushing** [parenteral use, with excessive rate of intravenous Administration]; **redness** [parenteral use, with excessive rate of intravenous Administration]; pale, clammy skin.

GENERALITIES: **allergic reaction** (skin rash or hives; swelling of mouth or throat; trouble in breathing) [parenteral use]; **flushing** [parenteral use, with excessive rate of intravenous Administration]; **heartbeat, fast** [parenteral use]; **hypotension** (dizziness or fainting) [parenteral use]; **pain, muscle or at intramuscular injection site** [parenteral use]; **redness at intramuscular injection site** [parenteral use]; **redness at intravenous injection site** [parenteral use]; **sores at intramuscular injection site** [parenteral use]; irritation, contact (chest or throat pain, especially when swallowing; stools containing fresh or digested blood) [oral use]; malaise (general unwell feeling) [parenteral use]; weakness (without feeling dizzy or faint) [parenteral use]; anaphylactic reactions (fatal on rare occasions; sudden onset of respiratory difficulties and/or cardiovascular collapse) [parenteral use]; acidosis, metabolic; collapse, cardiovascular; heartbeat, weak and fast; hypoglycemia; leukocytosis; seizures; tiredness or weakness, unusual; toxicity, acute (symptoms ranging from vomiting to coma).

DIAGNOSTIC TESTS: darkened urine; blood glucose, increased; hypoglycemia; leukocytosis.

Isometheptene, Dichloralphenazone, and Acetaminophen (Systemic)

Commercial name(s): *Amidrine; Duradrin; IDA; Iso-Acetazone; Isocom; Midchlor; Midrin; Migquin; Migrapap; Migratine; Migrazone; Migrend; Migrex; Mitride.*

Category: Vascular headache suppressant (migraine).

Conventional indications: Headache, migraine (treatment); Headache, tension-type (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: coma.

VERTIGO: *dizziness*.

HEAD: edema, cerebral.

STOMACH: bleeding, gastrointestinal; upset, gastrointestinal (diarrhea; loss of appetite; nausea or vomiting; stomach cramps or pain).

ABDOMEN: bleeding, gastrointestinal; damage, liver; failure, hepatic, overt; hepatic disease, overt; hepatotoxicity (pain, tenderness, and/or swelling in upper abdominal area); upset, gastrointestinal (diarrhea; loss of appetite; nausea or vomiting; stomach cramps or pain).

RECTUM: bleeding, gastrointestinal.

KIDNEYS: failure, renal (signs may include bloody or cloudy urine and sudden decrease in amount of urine); necrosis, tubular, renal.

RESPIRATION: depression, respiratory.

CHEST: *heartbeat, fast or irregular*; arrhythmias, cardiac.

SLEEP: drowsiness.

PERSPIRATION: increased sweating.

SKIN: *dermatitis, allergic* (skin rash, hives, or itching).

GENERALITIES: *anemia; heartbeat, fast or irregular; methemoglobinemia* (unusual tiredness or weakness); *agranulocytosis* (unexplained sore throat and fever); *hepatitis* (yellow eyes or skin); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); acidosis, metabolic; arrhythmias, cardiac; coagulation defects; coagulation, intravascular, disseminated; collapse, cardiovascular; coma; convulsions; encephalopathy, hepatic (with mental changes, confusion, agitation, or stupor); hypoglycemia.

DIAGNOSTIC TESTS: *anemia; methemoglobinemia; agranulocytosis; thrombocytopenia*; hypoglycemia; liver function tests, abnormalities in.

Secondary Actions or Rebound Effects: *headache*.

Isoniazid (Systemic)

Commercial name(s): *Isotamine; Laniazid; Nydrazid; PMS Isoniazid*.

Category: Antibacterial (antimycobacterial).

Conventional indications: Tuberculosis, latent infection (treatment); Tuberculosis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: disorientation; lethargy; speech, slurred.

VERTIGO: dizziness.

EYE: *neuritis, optic* (blurred vision or loss of vision, with or without eye pain).

MOUTH: speech, slurred.

STOMACH: nausea; pain; vomiting.

RECTUM: diarrhea.

URINE: glycosuria; ketonuria.

EXTREMITIES: **neuritis, peripheral** (clumsiness or unsteadiness; numbness, tingling, burning, or pain in hands and feet); hyperreflexia.

GENERALITIES: **hepatitis** (dark urine, yellow eyes or skin; sometimes fatal; age-related); **hepatitis prodromal symptoms** (loss of appetite, nausea or vomiting, unusual tiredness or weakness); **neuritis, peripheral** (clumsiness or unsteadiness; numbness, tingling, burning, or pain in hands and feet); *dyscrasias, blood* (fever and sore throat, unusual bleeding and bruising, unusual tiredness or weakness); *hypersensitivity* (fever, joint pain, skin rash); *neurotoxicity* (seizures, mental depression, mood or other mental changes); *pyridoxine deficiency* (in adults receiving high doses of Isoniazid; probably results from Isoniazid's competition with Pyridoxal Phosphate for the enzyme Apotryptophanase); accumulation, lactic acid (produces an anion-gap metabolic acidosis within a few hours); hyperglycemia; hyperreflexia; seizures.

DIAGNOSTIC TESTS: *pyridoxine deficiency*; glycosuria; hyperglycemia; ketonuria.

Isotretinoin (Systemic)

Commercial name(s): *Accutane; Accutane Roche.*

Category: Antiacne agent (systemic); Antirosacea agent (systemic); Keratinization stabilizer (systemic).

Conventional indications: Severe recalcitrant nodular acne (treatment); Folliculitis, gram-negative (treatment); Rosacea, severe (treatment); Hidradenitis suppurativa (treatment); Keratinization disorders; Ichthyosis, lamellar; Keratosis follicularis; Palmoplantar keratoderma; Pityriasis rubra pilaris.

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental; psychosis; suicidal ideation* (attempts at suicide or thoughts of suicide; changes in behavior); *aggression* (attack, assault, or use of force); *behavior, violent* (use of extreme physical or emotional force); *lethargy* (unusual drowsiness, dullness, tiredness, weakness or feeling of sluggishness); *nervousness*; *suicide* (killing oneself); *suicide attempts* (attempts at killing oneself); irritability.

VERTIGO: *dizziness; syncope* (fainting).

HEAD: **headache, mild; thinning of hair;** *pseudotumor cerebri* (blurred vision or other changes in vision; headache, severe or continuing; nausea; vomiting); *alopecia* (hair loss, thinning of hair); *hair abnormalities; hirsutism* (increased hair growth, especially on the face); *seborrhea* (dandruff, oily skin); *stroke* (confusion; difficulty in speaking; slow speech; inability to speak; inability to move arms, legs, or facial muscles; double vision; headache); pressure, intracranial, elevated (headache, severe; nausea; vomiting).

EYE: **burning; contact lenses, difficulty in wearing; dryness; itching; redness; signs of inflammation;** *cataracts* (blurred vision or other changes in vision); *neuritis, optic* (pain or

tenderness of eyes); *opacities, corneal* (blurred vision or other changes in vision); *conjunctivitis* (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing); *herpes simplex, disseminated* (burning or stinging of skin; painful cold sores or blisters on eyes); *photophobia* (blurred vision; change in color vision; difficulty seeing at night; increased sensitivity of eyes to sunlight).

VISION: *night vision decreased* (decreased vision after sunset and before sunrise); *color vision disorder*.

HEARING: *impairment, hearing* (loss of hearing; change in hearing); *tinnitus* (continuing ringing or buzzing or other unexplained noise in ears, hearing loss).

NOSE: *dryness; epistaxis* (nosebleeds); *herpes simplex, disseminated* (burning or stinging of skin; painful cold sores or blisters on nose).

FACE: *cheilitis* (scaling, redness, burning, pain, or other signs of inflammation of lips); *erythema, facial* (flushing, redness of face, unusually warm skin); *herpes simplex, disseminated* (burning or stinging of skin; painful cold sores or blisters on lips); *hirsutism* (increased hair growth, especially on the face); *cheilosis* (scaling of lips and fissures in the corners of the mouth); flushing, facial (redness to face; face is warm or hot to touch).

MOUTH: *dryness; bleeding of gums; inflammation of gums; granuloma, pyogenic* (sore in mouth or on gums; bleeding from sore in mouth).

THROAT: *esophagitis* (difficulty in swallowing; pain or burning in throat; chest pain; heartburn; vomiting; sores, ulcers, or white spots on lips or tongue or inside the mouth); *esophageal ulceration* (difficulty in swallowing; pain or burning in throat; chest pain; heartburn; vomiting; sores, ulcers, or white spots on lips or tongue or inside the mouth); *voice alteration*.

STOMACH: *upset stomach; calcification of the gastric mucosa, metastatic, increased incidence of* (studies in animals with prolonged isotretinoin therapy); *nausea*.

ABDOMEN: *ileitis, regional* (rectal bleeding; severe abdominal or stomach pain; severe diarrhea); *inflammatory bowel disease* (rectal bleeding; severe abdominal or stomach pain; severe diarrhea); *colitis* (stomach cramps, tenderness, or pain; watery or bloody diarrhea; fever); *calcification of mesenteric arteries; pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); pain, abdominal.

KIDNEYS: *glomerulonephritis* (cloudy or bloody urine; high blood pressure; swelling of face, feet or lower legs).

GENITALIA MALE: *herpes simplex, disseminated* (burning or stinging of skin; painful cold sores or blisters on genitals).

GENITALIA FEMALE: *herpes simplex, disseminated* (burning or stinging of skin; painful cold sores or blisters on genitals); *menses, abnormal*.

RESPIRATION: *bronchospasms* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *infection, respiratory* (cough; fever; sneezing; sore throat).

CHEST: *bronchospasms* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *calcification of coronary and pulmonary arteries; fibrosis of the myocardium, increased incidence of* (studies in animals with prolonged Isotretinoin therapy); *inflammation of the myocardium, increased incidence of* (studies in animals with

prolonged Isotretinoin therapy); *pain, chest, transient; palpitation* (fast, irregular, pounding, or racing heartbeat or pulse); *tachycardia* (fast, pounding, or irregular heartbeat or pulse).

BACK: pain.

EXTREMITIES: arthralgia (bone or joint pain; difficulty in moving); **peeling of skin on palms of hands or soles of feet; hyperostosis, skeletal** (back pain; bone or joint pain; difficulty in moving; stiff, painful muscles); *arthritis* (pain, swelling, or redness in joints, muscle pain or stiffness, difficulty in moving); *bone abnormalities; epiphyseal closure, premature* (lack or slowing of normal growth in children); *fractures* (in adolescents); *osteopenia* (bone pain, tenderness, or aching; loss of appetite; muscle weakness; unusual weight loss); *osteoporosis* (pain in back, ribs, arms, or legs; decrease in height); *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *tendonitis* (joint pain or stiffness); ataxia (shakiness and unsteady walk; unsteadiness; trembling, or other problems with muscle control or coordination); fractures (when participating in sports).

NAILS: dystrophy, nail (changes in fingernails or toenails); *paronychia* (loosening of the fingernails; redness or soreness around fingernails).

SLEEP: drowsiness; insomnia (sleeplessness, trouble sleeping, unable to sleep).

PERSPIRATION: sweating.

SKIN: dryness; infection, skin; itching; peeling of skin on palms of hands or soles of feet; sensitivity to sunlight, increased; rash; alopecia (hair loss, thinning of hair); *eczema* (skin rash encrusted, scaly and oozing); *flushing; hair abnormalities; fragility, skin; herpes simplex, disseminated* (burning or stinging of skin; painful cold sores or blisters on lips, nose, eyes, or genitals); *hirsutism* (increased hair growth, especially on the face); *hyperpigmentation* (darkening of skin); *hypopigmentation* (lightening of normal skin color, lightening of treated areas of dark skin); *pruritus* (itching skin); *seborrhea* (dandruff, oily skin); *sunburn susceptibility increased* (rash, severe sunburn); *urticaria* (hives or welts, itching, redness of skin; skin rash); *xanthomas, eruptive* (irregular yellow patch or lump on skin); itching.

GENERALITIES: healing response, delayed or exaggerated (crusting of skin); **tiredness, unusual; hepatitis** (yellow eyes or skin); *hyperostosis, skeletal* (back pain; bone or joint pain; difficulty in moving; stiff, painful muscles); *pseudotumor cerebri* (blurred vision or other changes in vision; headache, severe or continuing; nausea; vomiting); *agranulocytosis* (cough or hoarseness; fever with or without chills; general feeling of tiredness or weakness; lower back or side pain; painful or difficult urination; sore throat; sores, ulcers, or white spots on lips or in mouth; unusual bleeding or bruising); *alopecia* (hair loss, thinning of hair); *anemia* (pale skin, troubled breathing with exertion, unusual bleeding or bruising, unusual tiredness or weakness); *arthritis* (pain, swelling, or redness in joints, muscle pain or stiffness, difficulty in moving); *bone abnormalities; bruising; calcification, focal; calcification of coronary, pulmonary, and mesenteric arteries, increased incidence of* (studies in animals with prolonged Isotretinoin therapy); *edema* (swelling); *epiphyseal closure, premature* (lack or slowing of normal growth in children); *fatigue; flushing; fractures* (in adolescents); *granuloma, pyogenic* (sore in mouth or on gums; bleeding from sore in mouth); *hair abnormalities; healing delayed* (in adolescents); *herpes simplex, disseminated* (burning or stinging of skin; painful cold sores or blisters on

lips, nose, eyes, or genitals); *hirsutism* (increased hair growth, especially on the face); *hypersensitivity reaction, systemic* (fast heartbeat; fever; hives; itching, irritation; hoarseness; joint pain, stiffness, or swelling; rash; redness of skin; shortness of breath; swelling of eyelids, face, lips, hands, or feet; tightness in chest; troubled breathing or swallowing; wheezing); *hypertriglyceridemia* (large amount of triglyceride in the blood); *infection, respiratory* (cough; fever; sneezing; sore throat); *lymphadenopathy* (swollen, painful, or tender lymph glands in neck, armpit, or groin); *malaise* (general feeling of discomfort or illness, unusual tiredness or weakness); *neutropenia* (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *osteopenia* (bone pain, tenderness, or aching; loss of appetite; muscle weakness; unusual weight loss); *osteoporosis* (pain in back, ribs, arms, or legs; decrease in height); *palpitation* (fast, irregular, pounding, or racing heartbeat or pulse); *paresthesias* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *seizures* (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); *tendonitis* (joint pain or stiffness); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *thrombotic disease, vascular* (severe headaches of sudden onset; sudden loss of coordination; pains in chest, groin, or legs, especially calves of legs; sudden onset of shortness of breath, for no apparent reason; sudden onset of slurred speech; sudden vision changes); *vasculitis* (redness, soreness or itching skin; fever; sores, welting or blisters); *weakness*; *Wegener’s granulomatosis* (bloody or cloudy urine; cough or bloody cough; ear pain; loss or change in hearing; nose bleeds; pain or tenderness around eyes and cheekbones; stuffy or runny nose; swelling of face, feet, or lower legs; trouble breathing; unusual weight gain); *weight loss*; fractures (when participating in sports); healing, delayed (when participating in sports).

DIAGNOSTIC TESTS: *agranulocytosis*; *anemia*; *calcification of coronary, pulmonary, and mesenteric arteries*, *increased incidence of* (studies in animals with prolonged Isotretinoin therapy); *hypertriglyceridemia*; *osteopenia*; *osteoporosis*; *thrombocytopenia*.

Secondary Actions or Rebound Effects: *acne fulminans* (fever; general feeling of discomfort or illness; joint pain; loss of appetite; sudden onset of severe acne on chest and trunk; unusual tiredness or weakness; weight loss).

Isoxsuprine (Systemic)

Commercial name(s): *Vasodilan*.

Category: Vasospastic therapy adjunct; Senility symptoms treatment adjunct; Labor (premature) inhibitor; Antidysmenorrheal.

Conventional indications: Cerebrovascular insufficiency (treatment); Labor, premature (prophylaxis and treatment); Dysmenorrhea (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: *nausea; vomiting.*

GENITALIA FEMALE: *late labor.*

CHEST: *edema, pulmonary* (shortness of breath); *pain, chest; tachycardia* (fast heartbeat) (may occur in both mother and baby during use for delay of premature labor).

SKIN: *allergic reaction* (skin rash).

GENERALITIES: *hypotension* (dizziness; fainting; low blood pressure) (may occur in both mother and baby during use for delay of premature labor); *tachycardia* (fast heartbeat) (may occur in both mother and baby during use for delay of premature labor).

Ivermectin (Systemic)

Commercial name(s): *Mectizan; Stromectol.*

Category: Anthelmintic (systemic).

Conventional indications: Onchocerciasis (treatment); Filariasis, Bancroft's (treatment); Scabies (treatment); Strongyloidiasis (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness* [during treatment of strongyloidiasis]; *hypotension, postural* (lightheadedness when getting up from a lying or sitting position) [during treatment of onchocerciasis].

HEAD: *headache* [during treatment of onchocerciasis].

EYE: *conjunctivitis* (eye or eyelid irritation, pain, redness, or swelling) [during treatment of onchocerciasis]; *edema, eyelid* (eye or eyelid irritation, pain, redness, or swelling) [during treatment of onchocerciasis]; *limbitis* (eye or eyelid irritation, pain, redness, or swelling) [during treatment of onchocerciasis]; *opacity, punctate* (eye or eyelid irritation, pain, redness, or swelling) [during treatment of onchocerciasis].

VISION: *loss of vision.*

FACE: *edema, facial* (swelling of the face) [during treatment of onchocerciasis].

STOMACH: *anorexia* (loss of appetite) [during treatment of strongyloidiasis].

RECTUM: *diarrhea* [during treatment of strongyloidiasis].

CHEST: *tachycardia* (rapid heartbeat) [during treatment of onchocerciasis].

EXTREMITIES: *arthralgia* (joint pain) [during treatment of onchocerciasis]; *myalgia* (muscle pain) [during treatment of onchocerciasis]; *edema, peripheral* (swelling of the arms, feet, hands, or legs) [during treatment of onchocerciasis].

SLEEP: *somnolence* (sleepiness) [during treatment of strongyloidiasis].

FEVER: *fever* [during treatment of onchocerciasis].

SKIN: *pruritus* (itching) [during treatment of onchocerciasis]; *rash* [during treatment of onchocerciasis or of strongyloidiasis]; *itching* [during treatment of strongyloidiasis].

GENERALITIES: *arthralgia* (joint pain) [during treatment of onchocerciasis]; *lymphadenopathy* (painful and tender glands in neck, armpits, or groin) [during treatment of onchocerciasis]; *Mazzotti-like reaction* [during treatment of onchocerciasis]; *myalgia* (muscle pain) [during treatment of onchocerciasis]; *tachycardia* (rapid heartbeat) [during treatment of onchocerciasis]; *edema, peripheral* (swelling of the arms, feet, hands, or legs);

Materia Medica - Letter I

hypotension, postural (lightheadedness when getting up from a lying or sitting position) [during treatment of onchocerciasis]; *tremor* (shaking or trembling) [during treatment of strongyloidiasis]; asthenia; edema; seizures.

Japanese Encephalitis Virus Vaccine (Systemic)

Commercial name(s): *Je-Vax*.

Category: Immunizing agent (active).

Conventional indications: Japanese encephalitis (prophylaxis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

FACE: *angioedema of the face (especially lips)* (swelling of face, lips).

MOUTH: *angioedema of the oropharynx* (swelling of tongue).

THROAT: *angioedema of the oropharynx* (swelling of throat).

STOMACH: *nausea; vomiting*.

ABDOMEN: *pain, abdominal*.

KIDNEYS: *failure, renal*.

RESPIRATION: *failure, respiratory; troubled breathing; wheezing*.

EXTREMITIES: *myalgia* (aches or pains in muscles); *angioedema of the extremities* (swelling of hands, or feet); *swelling, joint*.

CHILL: *chills*.

FEVER: *fever*.

SKIN: *itching; rash; erythema multiforme* (skin rash); *erythema nodosum* (skin rash); *urticaria* (hives).

GENERALITIES: *tenderness, soreness, redness, or swelling at injection site; malaise* (general feeling of discomfort or illness); *myalgia* (aches or pains in muscles); *death; erythema multiforme* (skin rash); *Guillain-Barré syndrome; hepatitis; hypertension; hypotension, severe* (severe, unusual tiredness or weakness); *swelling, joint*.

DIAGNOSTIC TESTS: *eosinophilia and showed effusion and infiltrates on the chest x-ray; infiltrates on chest x-ray and acid-fast bacilli in sputum*.

Kanamycin (Oral-Local)

Commercial name(s): *Kantrex*.

Category: Hepatic encephalopathy therapy adjunct; Bowel preparation (preoperative) adjunct.

Conventional indications: Bowel preparation, preoperative; Hepatic coma (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *ototoxicity, vestibular* (clumsiness; dizziness; unsteadiness).

EAR: *ototoxicity, auditory* (any loss of hearing; ringing or buzzing; a feeling of fullness in the ears).

HEARING: *ototoxicity, auditory* (any loss of hearing; ringing or buzzing; a feeling of fullness in the ears).

STOMACH: *nausea; vomiting*.

ABDOMEN: *malabsorption syndrome* (diarrhea; increased amount of gas; light-colored, frothy, fatty-appearing stools).

RECTUM: *diarrhea*.

KIDNEYS: *nephrotoxicity* (greatly decreased frequency of urination or amount of urine; increased thirst).

GENERALITIES: *malabsorption syndrome* (diarrhea; increased amount of gas; light-colored, frothy, fatty-appearing stools).

Kaolin and Pectin (Oral-Local)

Commercial name(s): *Donnagel-MB; K-P; Kao-Spen; Kapectolin*.

Category: Antidiarrheal (adsorbent).

Conventional indications: Diarrhea (treatment).

Primary Actions or Pathogenetic Symptoms

RECTUM: *constipation* (may rarely lead to fecal impaction).

Ketamine (Systemic)

Commercial name(s): *Ketalar*.

Category: Anesthetic (general).

Conventional indications: Anesthesia, general; Anesthesia, general, adjunct; Anesthesia, local, adjunct; Sedation and analgesia.

Primary Actions or Pathogenetic Symptoms

MIND: *anesthesia* (unconsciousness); **emergence reaction** (alterations in mood or body image; delirium; dissociative or floating sensations); **hallucinations, visual; illusions**.

EYE: *nystagmus* (wandering or back-and-forth eye movements).

VISION: *double vision*.

MOUTH: secretions, tracheobronchial, increased (increased salivation).

THROAT: **vocalization.**

STOMACH: *appetite, loss of; nausea; vomiting.*

LARYNX AND TRACHEA: *laryngospasm; secretions, tracheobronchial, increased (increased salivation).*

RESPIRATION: *depression, respiratory* (may lead to apnea); *laryngospasm; obstruction, airway.*

CHEST: **tachycardia;** *bradycardia; arrhythmias, cardiac;* secretions, tracheobronchial, increased (increased salivation).

EXTREMITIES: **muscle movements, tonic and clonic** (may resemble seizures).

DREAMS: **vivid dreams.**

SKIN: *redness; rash.*

GENERALITIES: *anesthesia; blood pressure increased* (may reach hypertensive levels); **muscle movements, tonic and clonic** (may resemble seizures); **tachycardia; tremor;** *bradycardia; hypotension; pain at injection site; arrhythmias, cardiac.*

Ketoconazole (Topical)

Commercial name(s): *Nizoral A-D Shampoo; Nizoral Cream; Nizoral Shampoo.*

Category: Antifungal (topical).

Conventional indications: Tinea corporis (treatment) or Tinea cruris (treatment) [cream]; Tinea pedis (treatment) [cream]; Pityriasis versicolor (treatment) [cream and shampoo]; Candidiasis, cutaneous (treatment) [cream]; Dermatitis, seborrheic (treatment) or Dermatitis, seborrheic (prophylaxis) [cream and shampoo]; Dandruff (treatment) or Dandruff (prophylaxis) [shampoo]; Paronychia (treatment), Tinea barbae (treatment) or Tinea capitis (treatment) [cream].

Primary Actions or Pathogenetic Symptoms

HEAD: *dryness of the hair and scalp* [shampoo]; *oiliness of the hair and scalp* [shampoo]; *hair loss, normal, increase in* [shampoo].

SKIN: *dryness* [shampoo]; *irritation not present before therapy; itching not present before therapy; stinging not present before therapy; dermatitis, contact* (skin rash) [cream].

Ketorolac (Ophthalmic)

Commercial name(s): *Acular.*

Category: Anti-inflammatory, nonsteroidal (ophthalmic); Antipruritic (ophthalmic).

Conventional indications: Conjunctivitis, allergic (treatment); Inflammation, ocular (treatment); Inflammation, ocular (prophylaxis).

Primary Actions or Pathogenetic Symptoms

EYE: **burning upon instillation of medication; stinging upon instillation of medication;** *hypersensitivity* (itching, rash, redness, swelling, or other sign of irritation not present before therapy); *irritation, ocular* (itching, redness, tearing, or other sign of eye

irritation not present before use of this medicine or becoming worse during use); keratitis, superficial (redness of the clear part of the eye).

Ketorolac (Systemic)

Commercial name(s): *Toradol*.

Category: Analgesic.

Conventional indications: Pain (treatment); Pain, postoperative, in pediatric patients (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental; hallucinations; hyperactivity* (restlessness, severe); *psychosis* (mood changes; unusual behavior).

VERTIGO: *dizziness; fainting*.

HEAD: *headache; meningitis, aseptic* (fever; severe headache; drowsiness; confusion; stiff neck and/or back; general feeling of illness; nausea); *stroke, increased risk of* (rebound effect?).

VISION: *blurred vision; changes in vision*.

HEARING: *loss of hearing; tinnitus* (ringing or buzzing in ears).

NOSE: *nosebleeds; rhinitis* (runny nose).

FACE: *edema* (swelling of face).

MOUTH: *stomatitis* (sores, ulcers, or white spots on lips or in mouth); *edema of tongue*.

STOMACH: *indigestion; nausea; feeling of fullness in gastrointestinal tract; vomiting; bleeding, gastrointestinal, serious potential life-threatening; ulceration, gastrointestinal, usually peptic, possibly with perforation and/or bleeding* (abdominal pain, cramping, or burning, severe; bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; nausea, heartburn, and/or indigestion, severe and continuing).

ABDOMEN: *pain, abdominal; bloated feeling; feeling of fullness in gastrointestinal tract; gas; bleeding, gastrointestinal, serious potential life-threatening; pancreatitis, acute* (abdominal pain; fever with or without chills; swelling and/or tenderness in upper abdominal or stomach area); *ulceration, gastrointestinal, usually peptic, possibly with perforation and/or bleeding* (abdominal pain, cramping, or burning, severe; bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; nausea, heartburn, and/or indigestion, severe and continuing).

RECTUM: *diarrhea; constipation; bleeding, gastrointestinal, serious potential life-threatening; bleeding, rectal*.

STOOL: *bloody stools*.

BLADDER: *oliguria* (decrease in amount of urine); *urination, increase in frequency of; urine volume increased*.

KIDNEYS: *failure, renal, acute* (increased blood pressure; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sudden decrease in amount of urine; swelling of face, fingers, feet, and/or lower legs; continuing thirst; unusual tiredness or weakness; weight gain); *nephritis* (bloody or cloudy urine; increased blood pressure; sudden decrease in amount of urine; swelling of face, fingers, feet, and/or lower legs; rapid

weight gain); *pain, flank, with or without hematuria and/or azotemia* (pain in lower back and/or side; bloody or cloudy urine); insufficiency, renal.

URINE: *pain, flank, with or without hematuria and/or azotemia* (pain in lower back and/or side; bloody or cloudy urine).

LARYNX AND TRACHEA: *edema, laryngeal* (shortness of breath or troubled breathing).

RESPIRATION: *asthma* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing); *bronchospasm* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing); *dyspnea* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing).

CHEST: *asthma* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing); *bronchospasm* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing); *edema, pulmonary* (difficult, fast, noisy breathing, sometimes with wheezing; blue lips and fingernails; pale skin; increased sweating).

BACK: *pain, flank, with or without hematuria and/or azotemia* (pain in lower back and/or side; bloody or cloudy urine).

EXTREMITIES: **edema** (swelling of fingers, lower legs, ankles, and/or feet).

SLEEP: **drowsiness.**

FEVER: *fever.*

PERSPIRATION: *increased sweating.*

SKIN: *purpura* (small, red spots on skin; bruising); *rash* (rarely including maculopapular rash, or itching); *dermatitis, exfoliative* (fever with or without chills; red, thickened, or scaly skin; swollen and/or painful glands; unusual bruising); *hives*; *necrolysis, epidermal, toxic [Lyell's syndrome]* (redness, tenderness, itching, burning, or peeling of skin; sore throat; fever with or without chills).

GENERALITIES: *pain absence*; **bruising at injection site**; **edema** (swelling of face, fingers, lower legs, ankles, and/or feet; unusual weight gain); *burning at injection site*; *hypertension* (high blood pressure); *pain at injection site*; *anaphylaxis or anaphylactoid reaction* (changes in facial skin color; skin rash, hives, and/or itching; fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing); *anemia* (unusual tiredness or weakness); *bleeding from wound, postoperatively*; *convulsions*; *eosinophilia*; *hemolytic uremic syndrome* (hemolytic anemia, renal failure, thrombocytopenia, and purpura); *hepatitis* (loss of appetite; nausea; vomiting; yellow eyes or skin; swelling in upper abdominal area); *hypotension* (low blood pressure); *jaundice, cholestatic* (dark urine; fever; itching; light-colored stools; pain, tenderness, and/or swelling in upper abdominal area; skin rash; swollen glands; yellow eyes or skin); *leukopenia* (rarely, fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *pancreatitis, acute* (abdominal pain; fever with or without chills; swelling and/or tenderness in upper abdominal or stomach area); *Stevens-Johnson syndrome* (bleeding or crusting sores on lips; chest pain; fever with or without chills; muscle cramps or pain; skin rash; sores, ulcers, or white spots in mouth; sore throat); *thrombocytopenia* (rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); acidosis, metabolic; hypovolemia.

DIAGNOSTIC TESTS: *anemia; eosinophilia; leukopenia; thrombocytopenia; acidosis, metabolic.*

Ketotifen (Ophthalmic)

Commercial name(s): *Zaditor.*

Category: Antihistaminic (H₁-receptor), ophthalmic; Mast cell stabilizer, ophthalmic; Antiallergic, ophthalmic.

Conventional indications: Conjunctivitis, allergic (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

EYE: **injection, conjunctival** (eye redness and swelling); *allergic reactions* (eye redness; hives; itching; rash); *burning*; *conjunctivitis* (eye redness and swelling); *discharge*; *dryness*; *eyelid disorder*; *itching, increased*; *keratitis* (eye redness, swelling and discomfort); *lacrimation disorder* (tearing); *mydriasis* (increase in size of pupils); *pain*; *photophobia* (eye sensitivity to light); *rash*; *stinging*.

NOSE: **rhinitis** (stuffy or runny nose)

THROAT: *pharyngitis* (sore throat).

GENERALITIES: *flu syndrome* (fever, tiredness, achiness, and sore throat).

Ketotifen (Systemic)

Commercial name(s): *Apo-Ketotifen; Novo-Ketotifen; Zaditen.*

Category: Asthma prophylactic, systemic; Antiallergic, systemic.

Conventional indications: Asthma, atopic (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *excitation* (particularly in children); *irritability* (particularly in children); *nervousness* (particularly in children); *sedation* (drowsiness); coma (loss of consciousness); confusion (disorientation); hyperexcitability in children.

VERTIGO: *dizziness*.

EYE: *swelling of eyelids*.

NOSE: *epistaxis* (bloody nose; unexplained nosebleeds).

MOUTH: *dryness*.

STOMACH: *appetite, increased*; *pain, abdominal* (stomach or abdomen pain).

ABDOMEN: *pain, abdominal* (stomach or abdomen pain).

BLADDER: *cystitis* (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate).

RESPIRATION: *infection, respiratory* (cough; fever; sore throat).

CHEST: tachycardia (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations).

SLEEP: *disturbance, sleep* (trouble sleeping); *insomnia* (particularly in children); *sedation* (drowsiness).

SKIN: *rash*; *erythema multiforme* (blistering, itching, peeling, or redness of skin; joint pain; muscle pain; unusual tiredness or weakness).

GENERALITIES: **weight gain**; *flu* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *infection, respiratory* (cough; fever; sore throat); *stimulation, central nervous system (CNS)* (particularly in children; excitation; irritability; insomnia; nervousness); *erythema multiforme* (blistering, itching, peeling, or redness of skin; joint pain; muscle pain; unusual tiredness or weakness); *hepatitis* (abdominal or stomach pain; chills; clay-colored stools; dark urine; diarrhea; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *seizures* (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness); coma (loss of consciousness); convulsions, especially in children (seizures); hyperexcitability in children; hypotension (blurred vision; confusion; dizziness; faintness, or lightheadedness when getting up from a lying or sitting position; sweating; unusual tiredness or weakness); tachycardia (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations).

Krypton Kr 81m (Systemic)

Commercial name(s): *Krypton Kr 81m Gas Generator*.

Category: Diagnostic aid, radioactive (pulmonary disease; pulmonary emboli).

Conventional indications: Pulmonary function studies; Embolism, pulmonary (diagnosis).

Primary Actions or Pathogenetic Symptoms

At the present time, there are no known side/adverse effects associated with diagnostic doses of krypton Kr 81m.

L-Tryptophan (Systemic)

Commercial name(s): *Alti-Tryptophan*.

Category: Antidepressant therapy adjunct; Antimanic.

Conventional indications: Depression, mental (treatment); Bipolar disorder (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *disinhibition, sexual* (loss of control in sexual behavior).

VERTIGO: *dizziness*.

HEAD: *headache*.

MOUTH: *dryness*.

STOMACH: *anorexia* (loss of appetite); *nausea*; vomiting.

SLEEP: *drowsiness*.

GENERALITIES: *serotonin syndrome* (agitation; confusion; diarrhea; fever; increased sweating; mood or behavior changes; overactive reflexes; poor coordination; racing heartbeat; restlessness; shivering or shaking).

Lamivudine (Systemic)

Commercial name(s): *3TC; Epivir; Epivir-HBV; Heptovir*.

Category: Antiviral (systemic).

Conventional indications: Hepatitis B, chronic (treatment); Human immunodeficiency virus (HIV) infection (treatment); Immunodeficiency syndrome, acquired (AIDS) (treatment); Human immunodeficiency virus (HIV) infection, occupational exposure (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: **depressive disorders** (recurring symptoms of discouragement, feeling sad or empty, irritability, lack of appetite, loss of interest or pleasure, tiredness, trouble concentrating, trouble sleeping).

VERTIGO: **dizziness**.

HEAD: **headache**; *alopecia* (hair loss, thinning of hair).

EAR: **discharge, erythema, pain or swelling of ear** (more frequent in children; redness of skin; unusually warm skin); **infections**.

NOSE: **congestion** (more frequent in children); **discharge, nasal** (more frequent in children); **infections**.

MOUTH: **stomatitis** (more frequent in children; canker sores; sores, ulcers, or white spots on lips or tongue or inside the mouth).

THROAT: **infections; soreness**.

STOMACH: **anorexia and/or decreased appetite** (loss of appetite, weight loss); **cramps, abdominal** (stomach cramps); **nausea; pain, abdominal** (stomach pain); **vomiting; dyspepsia** (acid or sour stomach, belching, heartburn, indigestion, stomach discomfort, upset, or pain).

ABDOMEN: **cramps, abdominal; pain, abdominal; pancreatitis** (more frequent in children; nausea; vomiting; severe abdominal or stomach pain); **splenomegaly** (more

frequent in children; abdominal pain; feeling of fullness); *hepatomegaly, severe, with steatosis, with fatal cases* (more frequent in children; abdominal discomfort; feeling of fullness).

RECTUM: diarrhea.

RESPIRATION: wheezing (more frequent in children); *breathing, abnormal.*

COUGH: cough.

EXTREMITIES: arthralgia (pain in joints, muscle pain or stiffness, difficulty in moving); **myalgia** (joint pain, swollen joints, muscle aching or cramping, muscle pains or stiffness, difficulty in moving); **pain, musculoskeletal** (muscle or bone pain); **paresthesias and peripheral neuropathy** (more frequent in children; tingling, burning, numbness, or pain in the hands, arms, feet, or legs; sensation of pins and needles, stabbing pain; unsteadiness, awkwardness); *rhabdomyolysis* (dark-colored urine, fever, muscle cramps or spasms, muscle pain or stiffness, unusual tiredness or weakness).

SLEEP: insomnia (trouble sleeping); **sleep disorders** (trouble sleeping).

SKIN: rash; alopecia (hair loss, thinning of hair); *pruritus* (itching skin); *urticaria* (hives or welts, itching, redness of skin, skin rash).

GENERALITIES: arthralgia (pain in joints, muscle pain or stiffness, difficulty in moving); **fatigue** (unusual tiredness or weakness); **infections, ear, nose, and throat; lymphadenopathy** (more frequent in children; swollen, painful, or tender lymph glands in neck, armpit, or groin); **malaise** (general feeling of discomfort or illness, unusual tiredness or weakness); **myalgia** (joint pain, swollen joints, muscle aching or cramping, muscle pains or stiffness, difficulty in moving); **pain, musculoskeletal** (muscle or bone pain); **paresthesias and peripheral neuropathy** (more frequent in children; tingling, burning, numbness, or pain in the hands, arms, feet, or legs; sensation of pins and needles, stabbing pain; unsteadiness, awkwardness); *acidosis, lactic* (abdominal discomfort; decreased appetite; diarrhea; fast, shallow breathing; general feeling of discomfort; muscle pain or cramping; nausea; shortness of breath; sleepiness; unusual tiredness or weakness); *alopecia* (hair loss, thinning of hair); *anaphylaxis* (cough, difficulty swallowing, dizziness, fast heartbeat, hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue, shortness of breath, skin rash, tightness in chest, unusual tiredness or weakness, wheezing); *anemia* (unusual tiredness or weakness); *death; hyperglycemia* (abdominal pain, blurred vision, dry mouth, fatigue, flushed, dry skin, fruit-like breath odor, increased hunger, increased thirst, increased urination, nausea, sweating, troubled breathing, unexplained); *neutropenia* (fever, chills, or sore throat); *redistribution/accumulation, body fat; rhabdomyolysis* (dark-colored urine, fever, muscle cramps or spasms, muscle pain or stiffness, unusual tiredness or weakness); *weakness.*

DIAGNOSTIC TESTS: anemia; hyperglycemia; neutropenia; serum transaminases, increase in (greater than 10 times the upper limits of normal).

Secondary Actions or Rebound Effects: *hepatitis B, post-treatment exacerbation* (dark urine, general tiredness and weakness, light-colored stools, nausea and vomiting, upper right abdominal pain, yellow eyes and skin).

Lamivudine and Zidovudine (Systemic)

Commercial name(s): *Combivir*.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus (HIV) infection (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: confusion [Zidovudine]; lethargy [Zidovudine].

VERTIGO: dizziness.

HEAD: headache; alopecia (hair loss, thinning of hair).

MOUTH: pigmentation, oral mucosal (darkening of skin and mucous membranes); stomatitis (canker sores; sores, ulcers, or white spots on lips or tongue or inside the mouth).

STOMACH: nausea; anorexia (decreased appetite); vomiting [Zidovudine].

ABDOMEN: hepatotoxicity (more frequent in women; abdominal pain, severe; fever; nausea; skin rash; unusual tiredness or weakness; vomiting; yellow eyes or skin); pain, abdominal; hepatomegaly, severe, with steatosis (including fatal cases); pancreatitis (abdominal pain, severe; nausea; vomiting); splenomegaly (abdominal pain; felling of fullness); steatosis, hepatic (dark urine; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin).

RECTUM: diarrhea.

RESPIRATION: breathing, abnormal; wheezing.

COUGH: coughing.

CHEST: cardiomyopathy (chest discomfort or pain; difficulty breathing; dizziness; faintness; fast, irregular or pounding heartbeat; shortness of breath; swelling of feet or lower legs; troubled breathing; unusual tiredness or weakness); gynecomastia (swelling of the breasts or breast soreness in both females and males).

EXTREMITIES: myopathy (muscle tenderness and weakness); myositis (muscle tenderness and weakness); neuropathy (burning, tingling, numbness or pain in the hands, arms, feet, or legs); rhabdomyolysis (dark-colored urine, fever, muscle cramps or spasms, muscle pain or stiffness, unusual tiredness or weakness); weakness, muscle.

SLEEP: insomnia (trouble in sleeping); drowsiness [Zidovudine].

SKIN: rash; alopecia (hair loss, thinning of hair); erythema multiforme (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); urticaria (hives or welts, itching, redness of skin, skin rash).

GENERALITIES: anemia (pale skin; unusual tiredness or weakness); neutropenia (chills; fever; sore throat); myopathy (muscle tenderness and weakness); myositis (muscle tenderness and weakness); neuropathy (burning, tingling, numbness or pain in the hands, arms, feet, or legs); acidosis, lactic (abdominal discomfort; decreased appetite; diarrhea; fast, shallow breathing; general feeling of discomfort; muscle pain or cramping; nausea; shortness of breath; sleepiness; unusual tiredness or weakness); alopecia (hair loss, thinning of hair); anaphylaxis (cough, difficulty swallowing, dizziness, fast heartbeat, hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue, shortness of breath, skin rash, tightness in chest, unusual tiredness or weakness, wheezing); death; erythema multiforme (blistering, peeling, loosening of skin; chills; cough; diarrhea;

fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *hyperglycemia* (abdominal pain, blurred vision, dry mouth, fatigue, flushed, dry skin, fruit-like breath odor, increased hunger, increased thirst, increased urination, nausea, sweating, troubled breathing, unexplained); *lymphadenopathy* (swollen, painful, or tender lymph glands in neck, armpit, or groin); *paresthesias and peripheral neuropathy* (tingling, burning, numbness, or pain in the hands, arms, feet, or legs; sensation of pins and needles, stabbing pain; unsteadiness, awkwardness); *redistribution/accumulation, body fat; rhabdomyolysis* (dark-colored urine, fever, muscle cramps or spasms, muscle pain or stiffness, unusual tiredness or weakness); *seizures* (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *vasculitis* (redness, soreness or itching skin; fever; sores, welting or blisters); *weakness; weakness, muscle*; seizure, grand mal [Zidovudine].

DIAGNOSTIC TESTS: **anemia; neutropenia;** *hyperglycemia; steatosis, hepatic;* hematologic changes, transient [Zidovudine].

Secondary Actions or Rebound Effects: *hepatitis B, post-treatment exacerbation* (dark urine, general tiredness and weakness, light-colored stools, nausea and vomiting, upper right abdominal pain, yellow eyes and skin).

Lamotrigine (Systemic)

Commercial name(s): *Lamictal*.

Category: Anticonvulsant; Antimanic.

Conventional indications: Bipolar disorder (treatment); Epilepsy, partial seizures (treatment adjunct); Epilepsy, Lennox-Gastaut syndrome (treatment adjunct); Epilepsy, partial seizures (treatment); Epilepsy (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; confusion; depression; dysarthria* (slurred speech); *irritability; mood or mental changes; amnesia* (memory loss); *excitation, increased* (rebound effect?); coma.

VERTIGO: *dizziness* (higher incidence is seen in females than in males).

HEAD: *headache*.

EYE: *nystagmus* (continuous, uncontrolled back and forth and/or rolling eye movements).

VISION: *blurred vision; diplopia* (double vision); **vision abnormalities**.

NOSE: *rhinitis* (runny nose).

FACE: *angioedema* (swelling of face).

MOUTH: *dryness; dysarthria* (slurred speech); *angioedema* (swelling of mouth).

THROAT: *esophagitis* (difficulty in swallowing; pain or burning in throat; chest pain; heartburn; vomiting; sores, ulcers, or white spots on lips or tongue or inside the mouth).

STOMACH: *nausea; vomiting; dyspepsia* (indigestion).

ABDOMEN: *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: *constipation; diarrhea.*

GENITALIA FEMALE: *dysmenorrhea* (menstrual pain).

RESPIRATION: *apnea* (bluish lips or skin; not breathing).

CHEST: *pain, chest;* heart rate, increased.

EXTREMITIES: *ataxia* (clumsiness or unsteadiness); **coordination abnormalities** (poor coordination); *angioedema* (swelling of hands, or feet); *rhabdomyolysis* (in patients experiencing hypersensitivity reactions; dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *tics* (jerking of muscles all over the body).

SLEEP: *drowsiness; insomnia* (trouble in sleeping).

FEVER: *fever.*

SKIN: *rash; erythema multiforme* (blistering, peeling, or loosening of skin; muscle cramps, pain, or weakness; red or irritated eyes; skin rash or itching; sore throat, fever, and chills; sores, ulcers, or white spots in mouth or on lips); *necrolysis, epidermal, toxic* (blistering, peeling, or loosening of skin; muscle cramps, pain, or weakness; red or irritated eyes; skin rash or itching; sore throat, fever, and chills; sores, ulcers, or white spots in mouth or on lips); *petechia* (small red or purple spots on skin).

GENERALITIES: *asthenia* (loss of strength); *infection; pain; seizures, increased; toxicity.*
CNS (specifically anxiety; confusion; depression; irritability; other mood or mental changes; increased seizures; or nystagmus); *tremor* (trembling or shaking); *weight loss, unusual; agranulocytosis* (cough or hoarseness; fever with or without chills; general feeling of tiredness or weakness; lower back or side pain; painful or difficult urination, sore throat, sores, ulcers, or white spots on lips or in mouth, unusual bleeding or bruising); *anemia; anemia, aplastic* (chest pain; chills; cough; fever; headache; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen or painful glands; tightness in chest; unusual bleeding or bruising; unusual tiredness or weakness; wheezing); *anemia, hemolytic* (back, leg, or stomach pains; bleeding gums; chills; dark urine; difficulty breathing; fatigue; fever; general body swelling; headache; loss of appetite; nausea or vomiting; nosebleeds; pale skin; sore throat; yellowing of the eyes or skin); *angioedema* (trouble in breathing; swelling of face, mouth, hands, or feet); *aplasia, red cell* (fever and sore throat; pale skin; unusual bleeding or bruising; unusual tiredness or weakness); *coagulation, intravascular, disseminated* (blood in stools; blood in urine; bruising; confusion; coughing or vomiting blood; persistent bleeding or oozing from puncture sites, mouth, or nose, rash; shortness of breath); *death* (rare cases of toxic epidermal necrolysis and/or skin rash-related); *eosinophilia; erythema multiforme* (blistering, peeling, or loosening of skin; muscle cramps, pain, or weakness; red or irritated eyes; skin rash or itching; sore throat, fever, and chills; sores, ulcers, or white spots in mouth or on lips); *flu-like symptoms; hypersensitivity syndrome* (dark-colored urine; fever; flu-like symptoms; skin rash; facial swelling; swollen lymph nodes; unusual tiredness or weakness; yellow eyes or skin); *immunosuppression, progressive* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *leukopenia; lupus-like reaction* (fever or chills; general feeling of discomfort or illness or weakness); *lymphadenopathy; multi-organ failure* (chills;

confusion; dizziness; lightheadedness; fainting; fast heartbeat; fever; rapid, shallow breathing); *neutropenia* (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *Parkinsonian symptoms, exacerbation of* (in patients with pre-existing Parkinson's disease; difficulty swallowing; loss of balance control; mask-like face; shuffling walk; slowed movements; slurred speech; stiffness of arms and legs; tic-like [jerky] movements of head, face, mouth, and neck; trembling and shaking of fingers and hands); *rhabdomyolysis* (in patients experiencing hypersensitivity reactions; dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *seizure control, worsening of; Stevens-Johnson syndrome* (blistering, peeling, or loosening of skin; muscle cramps, pain, or weakness; red or irritated eyes; skin rash or itching; sore throat, fever, and chills; sores, ulcers, or white spots in mouth or on lips); *thrombocytopenia* (fever and sore throat; unusual bleeding or bruising; unusual tiredness or weakness); *tics* (jerking of muscles all over the body); *vasculitis* (redness, soreness or itching skin; fever; sores, welting or blisters); coma; heart rate, increased.

DIAGNOSTIC TESTS: *agranulocytosis; anemia; anemia, aplastic; anemia, hemolytic; eosinophilia; leukopenia; neutropenia; pancytopenia; thrombocytopenia*; electrocardiogram (ECG) changes, specifically prolonged QRS interval.

Lansoprazole (Systemic)

Commercial name(s): *Prevacid; Prevacid I.V.*

Category: Gastric acid pump inhibitor; Antiulcer agent.

Conventional indications: Gastroesophageal reflux disease [GERD] (prophylaxis and treatment); Ulcer, gastric (treatment); Ulcer, duodenal (prophylaxis and treatment); Ulcer, duodenal, *Helicobacter pylori* –associated (treatment); Hypersecretory conditions, gastric (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; depression, mental.*

VERTIGO: *dizziness.*

HEAD: *headache.*

MOUTH: *speech disorder* (difficulty in speaking); *taste perversion* (change in taste; bad, unusual or unpleasant (after) taste) [intravenous].

STOMACH: *appetite, increased or decreased; nausea; pain; vomiting.*

ABDOMEN: *pain, abdominal; colitis, ulcerative* (diarrhea, abdominal pain, rectal bleeding); *hepatotoxicity* (abdominal pain or tenderness; clay colored stools; dark urine; decreased appetite; fever; headache; itching; loss of appetite; nausea and vomiting; skin rash; swelling of feet or lower legs; unusual tiredness or weakness; yellow eyes or skin); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever;

indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: *diarrhea*; *constipation* (difficulty having a bowel movement [stool]).

BLADDER: *retention*, *urinary* (decrease in urine volume; decrease in frequency of urination; difficulty in passing urine [dribbling]; painful urination).

RESPIRATION: *inflammation or infection, upper respiratory tract* (cold symptoms).

COUGH: *cough, increased*.

CHEST: *inflammation or infection, upper respiratory tract* (cold symptoms).

EXTREMITIES: *arthralgia* (joint pain); *myalgia* (muscle pain).

SKIN: *itching*; *rash*; *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *necrolysis, epidermal, toxic* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *purpura, thrombotic thrombocytopenic* (change in mental status; dark or bloody urine; difficulty speaking; fever; pale color of skin; pinpoint red spots on skin; seizures; weakness; yellow eyes or skin).

GENERALITIES: *arthralgia* (joint pain); *injection site reaction* (bleeding, blistering, burning, coldness, discoloration of skin, feeling of pressure, hives, infection, inflammation, itching, lumps, numbness, pain, rash, redness, scarring, soreness, stinging, swelling, tenderness, tingling, ulceration, or warmth at site) [intravenous]; *pain, injection site* [intravenous]; *agranulocytosis* (cough or hoarseness; fever with or without chills; general feeling of tiredness or weakness; lower back or side pain; painful or difficult urination; sore throat; sores, ulcers, or white spots on lips or in mouth; unusual bleeding or bruising); *anaphylactoid-like reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *anemia, aplastic* (chest pain; chills; cough; fever; headache; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen or painful glands; tightness in chest; unusual bleeding or bruising; unusual tiredness or weakness; wheezing); *anemia, hemolytic* (back, leg, or stomach pains; bleeding gums; chills; dark urine; difficulty breathing; fatigue; fever; general body swelling; headache; loss of appetite; nausea or vomiting; nosebleeds; pale skin; sore throat; yellowing of the eyes or skin); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *inflammation or infection, upper respiratory tract* (cold symptoms); *influenza-like syndrome* (flu-like symptoms); *leukopenia* (black, tarry stools; chest pain; chills; cough fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *myalgia* (muscle pain); *neutropenia* (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or

weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles” , or tingling feelings) [intravenous]; *purpura, thrombotic thrombocytopenic* (change in mental status; dark or bloody urine; difficulty speaking; fever; pale color of skin; pinpoint red spots on skin; seizures; weakness; yellow eyes or skin); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *thrombocytopenia* (unusual bleeding or bruising); *vasodilatation* (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or light-headedness; sweating) [intravenous].

DIAGNOSTIC TESTS: *agranulocytosis; anemia, aplastic; anemia, hemolytic; leukopenia; neutropenia; pancytopenia; thrombocytopenia.*

Secondary Actions or Rebound Effects: dyspepsia (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain) [intravenous].

Lanthanum (Oral-Local)

Commercial name(s): *Fosrenol.*

Category: Antihyperphosphatemic.

Conventional indications: Hyperphosphatemia (treatment).

Primary Actions or Pathogenetic Symptoms

NOSE: *rhinitis* (stuffy nose; runny nose; sneezing).

STOMACH: *nausea; vomiting.*

ABDOMEN: *pain, abdominal* (stomach pain).

RECTUM: *constipation* (difficulty having a bowel movement [stool]); **diarrhea.**

GENERALITIES: *dialysis graft occlusion* (dialysis graft blockage).

DIAGNOSTIC TESTS: *hypophosphatemia.*

Laronidase (Systemic)

Commercial name(s): *Aldurazyme.*

Category: Enzyme replenisher.

Conventional indications: Mucopolysaccharidosis I (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *opacity, corneal* (blindness; blurred vision; decreased vision); *angioedema* (large, hive-like swelling on eyelids).

FACE: *edema, facial* (swelling or puffiness of face); *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

ABDOMEN: bilirubinemia (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin).

GENITALIA MALE: angioedema (large, hive-like swelling on sex organs).

GENITALIA FEMALE: angioedema (large, hive-like swelling sex organs).

RESPIRATION: infection, upper respiratory tract (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **bronchospasm** (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); **dyspnea** (shortness of breath; difficult or labored breathing; tightness in chest wheezing).

COUGH: cough.

CHEST: pain, chest; bronchospasm (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing).

EXTREMITIES: edema, dependent (swelling of legs and feet); **hyperreflexia** (overactive reflexes); **angioedema** (large, hive-like swelling on hands, legs, feet).

SKIN: rash; pruritus (itching skin); **urticaria** (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: abscess (accumulation of pus; swollen, red, tender area of infection; fever); **bilirubinemia** (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); **hyperreflexia** (overactive reflexes); **hypotension** (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); **immunogenicity** (body produces substance that can bind to drug making it less effective or cause side effects); **infusion reaction common** (fever; headache; skin rash); **injection site reaction** (bleeding, blistering, burning, coldness, discoloration of skin; feeling of pressure; hives, infection, inflammation, itching, lumps, numbness, pain, rash, redness, scarring, soreness, stinging, swelling, tenderness, tingling, ulceration, or warmth at site); **paresthesias** (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); **thrombocytopenia** (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); **vein disorder** (varicose or spider veins).

DIAGNOSTIC TESTS: bilirubinemia; thrombocytopenia.

Latanoprost (Ophthalmic)

Commercial name(s): *Xalatan*.

Category: Antiglaucoma agent (ophthalmic); Antihypertensive, ocular.

Conventional indications: Glaucoma, open-angle (treatment); Hypertension, ocular (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness [intravenous doses].

EYE: *hypotension; burning; hyperemia, conjunctival* (redness of eye or inside of eyelid); *itching; keratopathy, punctate epithelial* (blurred vision, eye irritation, or tearing); **length, thickness, pigmentation, and number of eyelashes, increased** (longer, thicker, and darker eyelashes); **pigmentation of iris, increased** (increase in brown color in colored part of eye); **pigmentation of periorbital tissue, increased** (darkening of eyelid skin color); **sensation, foreign body** (feeling of something in eye); **stinging; crusting, eyelid; discomfort, eyelid; dryness; pain, eye or eyelid; photophobia** (increased sensitivity of eyes to light); *redness, eyelid; swelling, eyelid; conjunctivitis* (redness of eye or inside of eyelid); *tearing; discharge; edema and erosions, corneal* (swelling of the eye); *edema, macular, including cystoid macular edema* (blurred vision or other change in vision); *inflammation, intraocular, such as iritis or uveitis* (eye pain, tearing, sensitivity of eye to light, redness of eye, or blurred vision or other change in vision).

VISION: **blurred vision; diplopia** (double vision).

STOMACH: nausea [intravenous doses].

ABDOMEN: pain, abdominal [intravenous doses].

RESPIRATION: *infection, upper respiratory tract* (cold or flu symptoms); *asthma; asthma, exacerbation of* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: *angina pectoris; pain, chest; asthma; asthma, exacerbation of* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing).

BACK: *pain, back.*

EXTREMITIES: *pain in muscles or joints.*

PERSPIRATION: sweating [intravenous doses].

SKIN: *allergic skin reaction* (skin rash); *necrolysis, epidermal, toxic* (fever; pain in muscles; skin rash; sore throat).

GENERALITIES: *cold; flu; infection, upper respiratory tract* (cold or flu symptoms); *pain in muscles or joints*; fatigue [intravenous doses]; hot flushes [intravenous doses].

Laxatives (Local)

Other commonly used names: Bisacodyl; Bisacodyl and Docusate; Casanthranol; Casanthranol and Docusate; Cascara Sagrada; Cascara Sagrada and Aloe; Cascara Sagrada and Bisacodyl; Castor Oil; Danthron and Docusate; Dehydrocholic Acid; Dehydrocholic Acid and Docusate; Docusate; Glycerin; Lactulose; Magnesium Citrate; Magnesium Hydroxide; Magnesium Hydroxide and Cascara Sagrada; Magnesium Hydroxide and Mineral Oil; Magnesium Oxide; Magnesium Sulfate; Malt Soup Extract; Malt Soup Extract and Psyllium; Methylcellulose; Mineral Oil; Mineral Oil and Glycerin; Poloxamer 188; Polycarbophil; Polyethylene Glycol 3350; Potassium Bitartrate and Sodium Bicarbonate; Psyllium; Psyllium and Senna; Psyllium Hydrophilic Mucilloid; Psyllium Hydrophilic Mucilloid and Carboxymethylcellulose; Psyllium Hydrophilic Mucilloid and Senna; Psyllium Hydrophilic Mucilloid and Sennosides; Senna; Sennosides; Sennosides and Docusate; Sodium Phosphate.

Category: Laxative; Bulk-forming [Malt Soup Extract; Malt Soup Extract and Psyllium ; Methylcellulose; Polycarbophil; Psyllium; Psyllium Hydrophilic Mucilloid; Psyllium Hydrophilic Mucilloid and Carboxymethylcellulose]; Bulk-forming and stimulant [Psyllium Hydrophilic Mucilloid and Senna; Psyllium Hydrophilic Mucilloid and Sennosides; Psyllium and Senna]; Carbon dioxide–releasing [Potassium Bitartrate and Sodium Bicarbonate]; Hyperosmotic [Glycerin; Lactulose; Polyethylene Glycol 3350]; Hyperosmotic, saline [Magnesium Citrate; Magnesium Hydroxide ; Magnesium Oxide; Magnesium Sulfate; Sodium Phosphate]; Hyperosmotic and lubricant [Magnesium Hydroxide and Mineral Oil; Mineral Oil and Glycerin]; Hyperosmotic, lubricant, and stimulant; Hyperosmotic and stimulant [Magnesium Hydroxide and Cascara Sagrada]; Lubricant [Mineral Oil]; Lubricant and stimulant; Stimulant or contact [Bisacodyl; Casanthranol; Cascara Sagrada; Cascara Sagrada and Aloe; Cascara Sagrada and Bisacodyl; Castor Oil; Dehydrocholic Acid; Senna; Sennosides]; Stimulant and stool softener [Bisacodyl and Docusate; Casanthranol and Docusate; Danthron and Docusate; Dehydrocholic Acid and Docusate; Sennosides and Docusate]; Stool softener or emollient [Docusate; Poloxamer 188 (poloxalkol)]; Antacid [Magnesium Hydroxide; Magnesium Oxide]; Antihyperammonemic [Lactulose]; Hydrocholeretic [Dehydrocholic Acid]; Antidiarrheal [Polycarbophil; Psyllium Hydrophilic Mucilloid]; Antihyperlipidemic [Psyllium Hydrophilic Mucilloid].

Conventional indications: Constipation (prophylaxis) [Oral bulk-forming, lubricant, and stool softener laxatives]; Constipation (treatment) [Oral laxatives]; Bowel evacuation, pre- and postpartum [Carbon dioxide-releasing suppositories]; Hyperammonemia (prophylaxis and treatment) [Lactulose]; Biliary tract disorders (treatment) [Dehydrocholic acid]; Diarrhea (treatment) [Polycarbophil]; Bowel syndrome, irritable (treatment adjunct) [Polycarbophil and other bulk-forming laxatives]; Hyperlipidemia (treatment) [Psyllium hydrophilic mucilloid].

Primary Actions or Pathogenetic Symptoms

THROAT: *irritation* [stool softeners: liquid forms]; *blockage, esophageal* [bulk-forming].

STOMACH: *belching* [stimulant]; *cramping* [stool softeners]; *nausea* [hyperosmotic: lactulose, polyethylene glycol 3350, or saline; stimulant]; *thirst increased* [hyperosmotic: lactulose, polyethylene glycol 3350, or saline].

ABDOMEN: *bloating* [hyperosmotic: lactulose, polyethylene glycol 3350, or saline]; *cramping* [hyperosmotic: lactulose, polyethylene glycol 3350, or saline; stimulant; stool softeners]; *gas formation* [hyperosmotic: lactulose, polyethylene glycol 3350, or saline]; *impaction, intestinal* [bulk-forming].

RECTUM: *diarrhea; irritation, rectal* (rectal bleeding, blistering, burning, itching, or pain) [rectal solutions; stimulant: suppository dosage form]; *irritation, skin, surrounding rectal area* [hyperosmotic: glycerin; lubricant]; *impaction, intestinal* [bulk-forming].

KIDNEYS: *accumulation, magnesium in presence of renal function impairment* (dizziness or light-headedness) [hyperosmotic-saline].

URINE: *discoloration of acid urine, yellow to brown* [stimulant: with cascara, and/or senna]; *discoloration of alkaline urine, pink to red, red to violet, or red to brown* [stimulant: with cascara, danthron, and/or senna].

SKIN: *urticaria suggestive of allergic reaction* (hives or welts; itching; redness of skin; skin rash) [hyperosmotic: Polyethylene Glycol 3350, while taking other medications that contain Polyethylene Glycol]; *allergic reaction to dehydrocholic acid* (skin rash) [stimulant]; *allergies, undetermined* (skin rash) [stool softeners].

GENERALITIES: *accumulation, magnesium in presence of renal function impairment* (dizziness or light-headedness) [hyperosmotic-saline]; *allergies to some vegetable components* (difficulty breathing; skin rash or itching) [bulk-forming]; *imbalance, electrolyte* (confusion; irregular heartbeat; muscle cramps; unusual tiredness or weakness) [hyperosmotic-saline; stimulant].

DIAGNOSTIC TESTS: *accumulation, magnesium in presence of renal function impairment* [hyperosmotic-saline]; *discoloration of acid urine, yellow to brown; discoloration of alkaline urine, pink to red, red to violet, or red to brown; imbalance, electrolyte* [hyperosmotic-saline; stimulant].

Leflunomide (Systemic)

Commercial name(s): Arava.

Category: Antirheumatic (disease-modifying).

Conventional indications: Arthritis, rheumatoid, adult (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety*.

VERTIGO: *dizziness*.

HEAD: *alopecia* (hair loss); **headache**.

EYE: *conjunctivitis* (red or irritated eyes); *angioedema* (large, hive-like swelling on eyelids).

NOSE: *rhinitis* (runny nose); *sinusitis* (headache; runny nose).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *dryness; ulcer* (irritation or soreness of mouth); *angioedema* (large, hive-like swelling on tongue).

THROAT: *pharyngitis* (pain or burning in throat); *angioedema* (large, hive-like swelling on throat).

STOMACH: **dyspepsia** (heartburn); **nausea; pain, abdominal** (stomach pain); **vomiting; anorexia** (decreased appetite); *gastritis* (burning feeling in chest or stomach; indigestion; tenderness in stomach area); *gastroenteritis* (severe abdominal pain; diarrhea; loss of appetite; nausea; weakness).

ABDOMEN: **pain, abdominal** (stomach pain); **hepatotoxicity** (loss of appetite; nausea and/or vomiting; yellow eyes or skin); *flatulence* (gas); *gastroenteritis* (severe abdominal pain; diarrhea; loss of appetite; nausea; weakness); *cholestasis* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *failure, hepatic* (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin); *necrosis, hepatic, acute* (abdominal or stomach pain; black, tarry

stools; chills; light-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: **diarrhea**; *constipation*.

BLADDER: **infection, urinary tract** (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate).

KIDNEYS: **infection, urinary tract** (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate).

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: **bronchitis** (congestion in chest; cough; difficult or painful breathing); **infection, respiratory** (cough; fever; sneezing; sore throat); *dyspnea* (shortness of breath); *interstitial lung disease/pneumonitis* (cough; difficult breathing; fever; shortness of breath).

CHEST: **bronchitis** (congestion in chest; cough; difficult or painful breathing); *pain, chest*; *palpitations* (pounding heartbeat); *tachycardia* (fast heartbeat); *fibrosis, pulmonary* (fever; cough; shortness of breath); *interstitial lung disease/pneumonitis* (cough; difficult breathing; fever; shortness of breath).

BACK: **pain, back.**

EXTREMITIES: *synovitis* (joint or muscle pain or stiffness) (rebound effect?); *tenosynovitis* (joint or muscle pain or stiffness) (rebound effect?); *angioedema* (large, hive-like swelling on hands, legs, feet); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness).

FEVER: *fever*.

SKIN: **alopecia** (hair loss); **rash**; *acne*; *pruritus* (itching of the skin); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *necrolysis, epidermal, toxic* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

GENERALITIES: **alopecia** (hair loss); **hypertension** (dizziness; headache, severe or continuing); **infection, respiratory** (cough; fever; sneezing; sore throat); **weight loss, unexplained**; *anemia* (unusual tiredness or weakness); *malaise* (unusual tiredness or weakness); *palpitations* (pounding heartbeat); *paresthesias* (burning, prickling, or tingling sensations in fingers and/or toes); *sinusitis* (headache; runny nose); *synovitis* (joint or muscle pain or stiffness) (rebound effect?); *tachycardia* (fast heartbeat); *tenosynovitis* (joint or muscle pain or stiffness) (rebound effect?); *agranulocytosis* (cough or hoarseness; fever with or without chills; general feeling of tiredness or weakness; lower back or side pain; painful or difficult urination; sore throat; sores, ulcers, or white spots on lips or in mouth; unusual bleeding or bruising); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *hepatitis* (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting;

upper right abdominal pain; yellow eyes and skin); *infections, opportunistic* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *jaundice* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness); *neutropenia* (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising unusual tiredness or weakness); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *sepsis* (chills; confusion; dizziness; lightheadedness; fainting; fast heartbeat; fever; rapid, shallow breathing); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: *anemia; agranulocytosis; leukopenia; neutropenia; pancytopenia; thrombocytopenia.*

Lenalidomide (Systemic)

Commercial name(s): *Revlimid.*

Category: Antianemic; Antiangiogenesis agent; Immunomodulator.

Conventional indications: Transfusional dependent anemia (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **depression** (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping).

VERTIGO: **dizziness.**

HEAD: **headache.**

NOSE: **epistaxis** (bloody nose); **nasopharyngitis** (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache); **rhinitis** (stuffy nose; runny nose; sneezing); **sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

MOUTH: **dryness; dysgeusia** (loss of taste; change in taste).

THROAT: **nasopharyngitis** (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache); **pharyngitis** (body aches or pain; congestion;

cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

EXTERNAL THROAT: hypothyroidism, acquired (constipation; depressed mood; dry skin and hair; feeling cold; hair loss; hoarseness or husky voice; muscle cramps and stiffness; slowed heartbeat; weight gain; unusual tiredness or weakness).

STOMACH: anorexia (loss of appetite; weight loss); **nausea; pain, abdominal** (stomach pain); **vomiting**.

ABDOMEN: pain, abdominal (stomach pain); **pain, upper abdominal**.

RECTUM: constipation (difficulty having a bowel movement [stool]); **diarrhea**.

STOOL: loose stools.

BLADDER: dysuria (difficult or painful urination; burning while urinating).

RESPIRATION: bronchitis (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); **dyspnea** (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); **dyspnoea exertional** (difficult or labored breathing; shortness of breath); **infection, upper respiratory tract** (ear congestion; nasal congestion; chills, cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

COUGH: cough.

CHEST: bronchitis (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); **pain, chest; palpitations** (fast, irregular, pounding, or racing heartbeat or pulse); *embolism, pulmonary* (anxiety; chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness).

BACK: pain, back.

EXTREMITIES: arthralgia (pain in joints; muscle pain or stiffness; difficulty in moving); **edema, peripheral** (swelling of hands, ankles, feet, or lower legs); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **neuropathy, peripheral** (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness); **pain in limb** (pain in arms or legs).

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep).

CHILL: rigors (feeling unusually cold; shivering).

FEVER: neutropenia, febrile (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); **pyrexia** (fever).

PERSPIRATION: night sweats; sweating increased.

SKIN: cellulitis (itching, pain, redness, swelling, tenderness, warmth on skin); **dryness; erythema** (flushing, redness of skin; unusually warm skin); **pruritus** (itching skin); **rash**.

GENERALITIES: antiangiogenesis; anemia (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness) (rebound effect?); **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **asthenia** (lack or loss of strength); **contusion** (hemorrhage beneath unbroken skin); **ecchymosis** (bruising; large, flat, blue or purplish patches in the skin); **edema** (swelling); **fatigue** (unusual tiredness or weakness); **hypertension** (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); **hypoesthesia** (abnormal or decreased touch sensation);

hypokalemia (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); **hypomagnesaemia** (drowsiness; loss of appetite; mood or mental changes; muscle spasms; [tetany] or twitching; seizures; nausea or vomiting; trembling; unusual tiredness or weakness); **hypothyroidism, acquired** (constipation; depressed mood; dry skin and hair; feeling cold; hair loss; hoarseness or husky voice; muscle cramps and stiffness; slowed heartbeat; weight gain; unusual tiredness or weakness); **infection, upper respiratory tract** (ear congestion; nasal congestion; chills, cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **leukopenia** (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); **neuropathy, peripheral** (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness); **neutropenia** (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); **neutropenia, febrile** (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); **pain; sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); **thrombocytopenia** (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *thrombosis, deep venous* (pain, redness, or swelling in arm or leg).

DIAGNOSTIC TESTS: **anemia** (rebound effect?); **hypokalemia; hypomagnesaemia; hypothyroidism; leukopenia; neutropenia; neutropenia, febrile; thrombocytopenia.**

Lepirudin (Systemic)

Commercial name(s): *Refludan.*

Category: Anticoagulant.

Conventional indications: Thrombocytopenia, heparin-induced (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *bleeding, intracranial* (confusion, headache, sudden severe weakness, nausea and vomiting).

NOSE: *nosebleed.*

STOMACH: *bleeding, gastrointestinal and rectal* (black, tarry stools; blood in stools; vomiting of blood or material that looks like coffee grounds).

ABDOMEN: **liver function, abnormal** (dark urine, light-colored stools, loss of appetite, nausea and vomiting, unusual tiredness, yellow eyes or skin, fever with or without chills,

stomach pain); *bleeding, gastrointestinal and rectal* (black, tarry stools; blood in stools; vomiting of blood or material that looks like coffee grounds).

RECTUM: *bleeding, gastrointestinal and rectal* (black, tarry stools; blood in stools; vomiting of blood or material that looks like coffee grounds).

KIDNEYS: *kidney function, abnormal* (decrease in urine output or decrease in urine-concentrating ability, cloudy urine).

URINE: *hematuria* (blood in urine).

GENITALIA FEMALE: *bleeding, vaginal*.

RESPIRATION: *pneumonia* (fever or chills; cough; shortness of breath).

COUGH: *coughing up blood*.

CHEST: *failure, heart* (swelling of feet or lower legs); *pneumonia* (fever or chills; cough; shortness of breath).

SKIN: *allergic reaction* (skin rash or itching).

GENERALITIES: *bleeding complications/hemorrhagic events* (bleeding gums, coughing up blood, difficulty in breathing or swallowing, dizziness, headache, increased menstrual flow or vaginal bleeding, nosebleeds, paralysis, prolonged bleeding from cuts, red or dark brown urine, red or black, tarry stools, shortness of breath); **anemia or isolated drop in hemoglobin** (pale skin, troubled breathing with exertion, unusual bleeding or bruising, unusual tiredness or weakness); **bleeding from puncture sites and wounds; hematoma** (collection of blood under the skin); *failure, multiorgan* (rebound thrombosis?); *infection, unspecified* (fever or chills, cough or hoarseness, lower back or side pain, painful or difficult urination); *anaphylactic reactions* (cough, difficulty swallowing, dizziness, fast heartbeat, hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue, shortness of breath, skin rash, tightness in chest, unusual tiredness or weakness, wheezing); *antihirudin antibodies, formation of* (in heparin-induced thrombocytopenia patients); *sepsis* (chills, confusion, dizziness, lightheadedness, fainting, fast heartbeat, fever, rapid, shallow breathing).

DIAGNOSTIC TESTS: **anemia or isolated drop in hemoglobin;** *hematuria;* *antihirudin antibodies, formation of*.

Letrozole (Systemic)

Commercial name(s): *Femara*.

Category: Antineoplastic.

Conventional indications: Carcinoma, breast (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; depression, mental*.

VERTIGO: *dizziness; vertigo* (spinning or whirling sensation, altering sense of balance).

HEAD: *alopecia* (loss of hair); *headache; cerebrovascular events* (confusion; severe or sudden headache; sudden loss of coordination; sudden slurring of speech).

VISION: *blurred vision*.

STOMACH: **nausea;** *anorexia* (loss of appetite; weight loss); *pain; upset stomach; vomiting*.

RECTUM: *constipation; diarrhea.*

GENITALIA FEMALE: *bleeding, vaginal.*

RESPIRATION: *dyspnea* (shortness of breath).

COUGH: *cough.*

CHEST: *effusion, pleural* (chest pain; shortness of breath); *pain, chest or breast; embolism, pulmonary* (chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness); *infarction, myocardial* (heart attack); *ischemia, myocardial* (chest pain; fainting; fast heartbeat; increased sweating; nausea, continuing or severe nervousness; shortness of breath; weakness).

BACK: *pain, back.*

EXTREMITIES: *arthralgia* (joint pain); **pain, bone;** *edema, peripheral* (swelling of feet or lower legs); *fracture, bone.*

SLEEP: *insomnia* (trouble sleeping); *sleepiness.*

PERSPIRATION: *increased sweating.*

SKIN: *alopecia* (loss of hair); *itching; rash.*

GENERALITIES: *arthralgia* (joint pain); **hot flashes** (sudden sweating and feeling of warmth); **myalgia** (muscle pain); **pain, bone;** *alopecia* (loss of hair); *asthenia* (weakness); *fracture, bone;* *hypercalcemia* (abdominal pain; confusion; constipation; depression; dry mouth; headache; incoherent speech; increased urination; loss of appetite; metallic taste; muscle weakness; nausea; thirst; unusual tiredness; vomiting; weight loss); *hypercholesterolemia* (high cholesterol); *hypertension;* *infection, viral* (chills; cough or hoarseness; fever; cold; flu-like symptoms); *tiredness, unusual; weight gain;* *infarction, myocardial* (heart attack); *ischemia, myocardial* (chest pain; fainting; fast heartbeat; increased sweating; nausea, continuing or severe nervousness; shortness of breath; weakness); *thromboembolism* (pain in chest, groin, or legs, especially the calves; severe, sudden headache; slurred speech; sudden, unexplained shortness of breath; sudden loss of coordination; sudden, severe weakness or numbness in arm or leg; vision changes; can result in stroke).

DIAGNOSTIC TESTS: *hypercalcemia; hypercholesterolemia; hepatic enzyme increased* (asymptomatic).

Leucovorin (Systemic)

Commercial name(s): *Wellcovorin.*

Category: Antidote (to folic acid antagonists); Antianemic; Antineoplastic adjunct.

Conventional indications: Methotrexate toxicity (prophylaxis and treatment); Pyrimethamine toxicity (prophylaxis and treatment); Trimethoprim toxicity (prophylaxis and treatment); Anemia, megaloblastic (treatment); Carcinoma, colorectal (treatment adjunct); Carcinoma, head and neck (treatment adjunct); Ewing's sarcoma (treatment adjunct); Lymphomas, non-Hodgkin's (treatment adjunct); Tumors, trophoblastic (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

GENERALITIES: *allergic reaction* (skin rash, hives, or itching; wheezing); *seizures.*

Leuprolide (Systemic)

Commercial name(s): *Eligard; Lupron; Lupron Depot; Lupron Depot-3 Month 11.25 mg; Lupron Depot-3 Month 22.5 mg; Lupron Depot-4 Month 30 mg; Lupron Depot-Ped; Lupron-3 Month SR Depot 22.5 mg; Viadur.*

Category: Gonadotropin-releasing hormone analog (similitude principle?); Antiendometriotic agent; Antineoplastic; Gonadotropin inhibitor.

Conventional indications: Anemia due to uterine leiomyomas (treatment); Carcinoma, prostatic (treatment); Endometriosis (treatment); Carcinoma, breast (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *changes in personality or behavioral* (in adult females) (anxiety; mental depression; mood changes; nervousness).

VERTIGO: dizziness (in adult females and males); *syncope* (in adult females and males) (fainting).

HEAD: headache (in adult females and males); *apoplexy, pituitary* (altered mental status; cardiovascular collapse; double vision; headache, sudden; visual changes; vomiting).

VISION: blurred vision (in adult females and males).

STOMACH: nausea (in adult females and males); vomiting (in adult females and males).

RECTUM: constipation (in adult males).

PROSTATE GLAND: prostatic carcinoma disease flare, transient (in adult males) (bone pain) (homeopathic aggravation?).

GENITALIA MALE: impotence (in adult males) (inability to have or keep an erection); libido, decreased (in adult males) (decreased interest in sexual intercourse); size of testicles decreased (in adult males).

GENITALIA FEMALE: amenorrhea (in adult females) (stopping of menstrual periods); spotting (in adult females) (light, irregular vaginal bleeding); endometriotic disease flare, transient (in adult females) (pelvic pain, dysmenorrhea, dyspareunia, pelvic tenderness, induration) (homeopathic aggravation?); libido, decreased (in adult females) (decreased interest in sexual intercourse); vaginitis (in adult females) (burning, dryness, or itching of vagina); bleeding, uterine continuing (in pediatric females; expected within first few weeks) (vaginal bleeding); discharge, vaginal, continuing (in pediatric females; expected within first few weeks) (white vaginal discharge); hypoestrogenism in females.

CHEST: arrhythmias, cardiac (in adult females and males) (fast or irregular heartbeat); palpitations (in adult females and males) (fast or irregular heartbeat); swelling of breasts (in adult females and males); tenderness of breasts increased (in adult females and males); angina (in adult males) (pains in chest); embolism, pulmonary (in adult males) (sudden shortness of breath); infarction, myocardial (in adult males) (pain in chest).

EXTREMITIES: edema (in adult females and males) (swelling of feet or lower legs); pain, bone, muscle, or joint, continuing (in adult females and males).

SLEEP: trouble in sleeping (in adult females and males).

SKIN: rash (in pediatric females and males).

GENERALITIES: **hot flashes** (in adult females and males) (sudden sweating and feelings of warmth); arrhythmias, cardiac (in adult females and males) (fast or irregular heartbeat); injection site reactions (burning, itching, redness, or swelling at place of injection); palpitations (in adult females and males) (fast or irregular heartbeat); weight gain (in adult females and males); anaphylaxis (in adult females and males) (fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; skin rash, hives, and/or itching; sudden, severe decrease in blood pressure and collapse); androgenic effects (in adult females) (deepening of voice; increased hair growth); anemia; apoplexy, pituitary (altered mental status; cardiovascular collapse; double vision; headache, sudden; visual changes; vomiting); bone density decreased; bone density, vertebral trabecular, loss of; hypoestrogenism in females; hypogonadism; hypotestosteronism in males; infarction, myocardial (in adult males) (pain in chest); pain, body (in pediatric females and males); pain, bone, muscle, or joint, continuing (in adult females and males); paresthesias (in adult females and males) (numbness or tingling of hands or feet); thrombophlebitis (in adult males) (pains in groin or legs, especially calves of legs).

DIAGNOSTIC TESTS: anemia.

Levalbuterol (Inhalation-Local)

Commercial name(s): *Xopenex*; *Xopenex HFA*.

Category: Bronchodilator, adrenergic (inhalation-local).

Conventional indications: Bronchospasm (treatment); Bronchospasm (prevention).

Primary Actions or Pathogenetic Symptoms

MIND: anxiety; nervousness.

VERTIGO: dizziness; syncope (dizziness; light-headedness; feeling “faint”).

HEAD: headache; migraine.

EYE: conjunctivitis (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing); herpes simplex (burning or stinging of skin; painful cold sores or blisters on eyes); itching; angioedema (large, hive-like swelling on eyelids).

EAR: pain, ear.

NOSE: rhinitis (runny nose); sinusitis (runny or stuffy nose); epistaxis (bloody nose); herpes simplex (burning or stinging of skin; painful cold sores or blisters on nose).

FACE: herpes simplex (burning or stinging of skin; painful cold sores or blisters on lips); angioedema (large, hive-like swelling on face, lips).

MOUTH: dryness; angioedema (large, hive-like swelling on tongue).

THROAT: pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); dryness; angioedema (large, hive-like swelling on throat).

STOMACH: dyspepsia (stomach pain or burning); vomiting; gastroenteritis (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); nausea.

ABDOMEN: gastroenteritis (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness).

RECTUM: constipation (difficulty having a bowel movement [stool]); diarrhea (rebound effect?).

URINE: hematuria (blood in urine).

GENITALIA MALE: herpes simplex (burning or stinging of skin; painful cold sores or blisters on genitals); angioedema (large, hive-like swelling on sex organs).

GENITALIA FEMALE: dysmenorrhea (pain, cramps, heavy bleeding); herpes simplex (burning or stinging of skin; painful cold sores or blisters on genitals); moniliasis, vaginal (vaginal yeast infection); angioedema (large, hive-like swelling on sex organs).

RESPIRATION: allergic reaction (chest tightness; hives; shortness of breath; troubled breathing; wheezing).

COUGH: cough increased.

CHEST: bronchodilator; **tachycardia** (fast heartbeat); allergic reaction (chest tightness; hives; shortness of breath; troubled breathing; wheezing); lung disorder (difficulty breathing); pain, chest; arrhythmias (dizziness; fainting; fast, slow, or irregular heartbeat); extrasystoles (extra heartbeats); fibrillation, atrial (fast or irregular heartbeat; dizziness; fainting); tachycardia, supraventricular (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); angina (chest pain); arrest, cardiac (chest pain); arrhythmia (irregular heartbeat); palpitations (irregular heartbeat).

EXTREMITIES: **cramps, leg**; **hypertonia** (muscle tightness); hypesthesia of the hand (numbness or decreased sensitivity); myalgia (muscle pain); angioedema (large, hive-like swelling on hands, legs, feet).

SLEEP: insomnia (sleeplessness).

SKIN: herpes simplex (burning or stinging of skin; painful cold sores or blisters on lips, nose, eyes, or genitals); rash; urticaria (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: **hypertonia** (muscle tightness); **infection, viral** (chills; cough or hoarseness; fever); **influenza-like symptoms** (fever; general aches and pains; headache; loss of appetite; weakness); **injury, accidental** (in children 4 to 11 years of age); **sinusitis** (runny or stuffy nose); **tachycardia** (fast heartbeat); **tremor**; cyst (abnormal growth filled with fluid or semisolid material); herpes simplex (burning or stinging of skin; painful cold sores or blisters on lips, nose, eyes, or genitals); hypertension (high blood pressure); hypokalemia (low potassium levels in the blood; irregular heartbeat); hypotension (low blood pressure; impaired consciousness; light-headedness; sweating) (rebound effect?); lymphadenopathy (fever; night sweats; weight loss); myalgia (muscle pain); pain; paresthesia (tingling sensation in extremities); anaphylaxis (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); arrhythmias (dizziness; fainting; fast, slow, or irregular heartbeat); extrasystoles (extra heartbeats); fibrillation, atrial (fast or irregular heartbeat; dizziness; fainting); tachycardia, supraventricular (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); death, sudden; fatigue; malaise (general feeling of discomfort or illness); palpitations (irregular heartbeat); seizures.

DIAGNOSTIC TESTS: ECG changes, abnormal; hematuria; extrasystoles; fibrillation, atrial; tachycardia, supraventricular; hypokalemia.

Secondary Actions or Rebound Effects: *asthma, exacerbation of* (chest tightness; hives; shortness of breath; troubled breathing; wheezing); *bronchitis* (in children 4 to 11 years of age) (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *bronchospasm* (chest tightness; hives; shortness of breath; troubled breathing; wheezing); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

Levamisole (Systemic)

Commercial name(s): *Ergamisol*.

Category: Biological response modifier; Antineoplastic adjunct.

Conventional indications: Carcinoma, colorectal (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; depression, mental; nervousness; confusion; paranoia*.

VERTIGO: *dizziness*.

HEAD: *alopecia* (loss of hair); *headache*; *pleiocytosis, cerebrospinal fluid (CSF)* (blurred vision; fever).

VISION: *blurred vision*.

MOUTH: *taste, metallic; stomatitis, mild* (sores in mouth and on lips).

STOMACH: *nausea; vomiting*.

ABDOMEN: *hepatotoxicity*.

RECTUM: *diarrhea*.

EXTREMITIES: *arthralgia* (pain in joints); *myalgia* (pain in muscles); *ataxia* (trouble in walking); *tardive dyskinesia* (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled movements of arms and legs).

SLEEP: *insomnia; sleepiness, unusual*.

DREAMS: *nightmares*.

SKIN: *alopecia* (loss of hair); *dermatitis* (skin rash or itching); *dermatitis, exfoliative, life-threatening*

GENERALITIES: *agranulocytosis, sometimes fatal* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *alopecia* (loss of hair); *arthralgia* (pain in joints); *blood dyscrasias*; *flu-like syndrome* (fever; chills; unusual feeling of discomfort or weakness); *leukopenia* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *myalgia* (pain in muscles); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *tiredness, unusual*; *paresthesias* (numbness, tingling, or pain in face, hands, or feet); *pleiocytosis, cerebrospinal fluid (CSF)* (blurred vision; fever); *seizures*; *tardive dyskinesia* (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled movements of arms and legs); *pleiocytosis, cerebrospinal fluid (CSF)* (blurred vision; fever); *tremors*.

DIAGNOSTIC TESTS: *agranulocytosis; leukopenia; thrombocytopenia; pleiocytosis, cerebrospinal fluid (CSF)*.

Levetiracetam (Systemic)

Commercial name(s): *Keppra*.

Category: Anticonvulsant.

Conventional indications: Epilepsy, partial seizures (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation; amnesia; anxiety; apathy; depersonalization; depression; emotional lability; hostility; mood or mental changes; nervousness; hallucinations; psychotic symptoms; suicide attempt; aggression; coma; consciousness, depressed level of.*

VERTIGO: *dizziness; vertigo* (dizziness or light-headedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: *headache; alopecia* (hair loss; thinning of hair).

VISION: *diplopia* (double vision).

NOSE: *rhinitis* (sneezing; stuffy nose; runny nose); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

THROAT: *pharyngitis* (cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: *anorexia* (loss of appetite; weight loss).

ABDOMEN: *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RESPIRATION: depression, respiratory (pale or blue lips, fingernails, or skin; difficult or troubled breathing; irregular, fast or slow, or shallow breathing; shortness of breath).

COUGH: *cough increased.*

EXTREMITIES: *ataxia* (clumsiness or unsteadiness; problems with muscle control or coordination).

SLEEP: *somnolence* (sleepiness or unusual drowsiness).

SKIN: *alopecia* (hair loss; thinning of hair).

GENERALITIES: *asthenia* (loss of strength or energy; muscle pain or weakness; unusual weak feeling); *pain; infection* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *paresthesia* (burning, crawling, itching, numbness, prickling, pins and needles, or tingling feelings); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *alopecia* (hair loss; thinning of hair); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *neutropenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody; black, or tarry stools; pale skin; unusual tiredness

or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); coma.

DIAGNOSTIC TESTS: *leukopenia; neutropenia; pancytopenia; thrombocytopenia.*

Levocabastine (Ophthalmic)

Commercial name(s): *Livostin.*

Category: Antihistaminic (H₁-receptor) (ophthalmic); Antiallergic (ophthalmic).

Conventional indications: Conjunctivitis, seasonal allergic (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache.*

EYE: *burning, transient; stinging, transient; dryness; discharge; edema, eyelid* (swelling of eyelids); *irritation not present before therapy or becoming worse during therapy* (rebound effect?); *pain, eye; redness; tearing.*

VISION: *visual disturbances* (change in vision or trouble in seeing).

MOUTH: *dryness.*

THROAT: *pharyngitis* (sore throat).

STOMACH: *nausea.*

RESPIRATION: *dyspnea* (troubled breathing).

COUGH: *cough.*

SLEEP: *somnolence* (feeling sleepy).

SKIN: *rash.*

GENERALITIES: *fatigue* (unusual tiredness or weakness).

Levocarnitine (Systemic)

Commercial name(s): *Carnitor.*

Category: Carnitine deficiency therapy agent.

Conventional indications: Carnitine deficiency (treatment); Carnitine deficiency, in end-stage renal disease (ESRD) patients on hemodialysis (prevention and treatment) [Parenteral]; Carnitine deficiency, secondary to valproic acid toxicity (prophylaxis and treatment) [Oral solution].

Primary Actions or Pathogenetic Symptoms

MIND: *depression* (in dialysis patients with ESRD).

VERTIGO: *dizziness* (in dialysis patients with ESRD).

HEAD: *headache* (in dialysis patients with ESRD).

VISION: *amblyopia* (in dialysis patients with ESRD) (blurred vision; change in vision; impaired vision).

STOMACH: *cramps; nausea; vomiting; anorexia* (in dialysis patients with ESRD) (loss of appetite; weight loss); *gastritis* (abdominal discomfort; loss of appetite).

ABDOMEN: *cramps, abdominal.*

RECTUM: diarrhea.

CHEST: tachycardia (in dialysis patients with ESRD) (fast heartbeat).

EXTREMITIES: edema, peripheral (in dialysis patients with ESRD) (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss).

FEVER: fever (in dialysis patients with ESRD).

GENERALITIES: hypertension (in dialysis patients with end-stage renal disease (ESRD)); asthenia (in dialysis patients with ESRD) (loss of strength or energy; muscle pain or weakness); edema, peripheral (in dialysis patients with ESRD) (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); hypercalcemia (in dialysis patients with ESRD) (abdominal pain; confusion; constipation; depression; dry mouth; headache; incoherent speech; increased urination; loss of appetite; metallic taste; muscle weakness; nausea; thirst; unusual tiredness; vomiting; weight loss); odor, body; paresthesias (in dialysis patients with ESRD) (burning, crawling, itching, numbness, prickling, “pins and needles,” or tingling feelings); tachycardia (in dialysis patients with ESRD) (fast heartbeat); seizures.

DIAGNOSTIC TESTS: hypercalcemia.

Levodopa (Systemic)

Commercial name(s): *Larodopa*.

Category: Antidyskinetic.

Conventional indications: Parkinsonism (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: agitation; anxiety; confusion; delusions (abnormal thinking: holding false beliefs that cannot be changed by fact); **euphoria** (false sense of well-being); **hallucinations** (seeing, hearing, or feeling things that are not there); **numbness**; depression, mental, with or without suicidal tendencies (mood or mental changes); paranoid ideation; psychotic episodes; neuropsychiatric problems (long-term levodopa therapy) (confusion, agitation, hallucinations, irritability, panic, paranoid delusions, mental depression, dementia, mania, and psychosis; euphoria, hypersexuality, or hypomania).

VERTIGO: dizziness; feeling faint; hypotension, orthostatic (dizziness or lightheadedness when getting up from a lying or sitting position).

HEAD: headache.

EYE: blepharospasm (increased blinking or spasms of eyelids); mydriasis (dilated pupils); oculogyric crisis (inability to move eyes).

VISION: blurred vision; diplopia (double vision).

FACE: trismus (difficulty opening mouth); edema (swelling of face).

MOUTH: dryness; sialorrhea (excessive watering of mouth); burning sensation of tongue; darkening in color of saliva; taste, bitter.

TEETH: bruxism (clenching or grinding of teeth).

THROAT: dysphagia (difficulty swallowing).

STOMACH: **anorexia** (loss of appetite); **nausea**; **vomiting**; *hiccups*; *bleeding, gastrointestinal* (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds).

ABDOMEN: **pain, abdominal**; **flatulence** (passing gas); *bleeding, gastrointestinal* (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds); *ulcer, duodenal* (stomach pain).

RECTUM: *constipation*; *diarrhea*; *bleeding, gastrointestinal* (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds).

BLADDER: *incontinence, urinary* (loss of bladder control); *retention, urinary* (difficult urination).

URINE: *darkening in color of urine*.

GENITALIA MALE: *priapism* (prolonged, painful, inappropriate penile erection).

CHEST: *cardiac irregularities* (fast, irregular, or pounding heart beat); *palpitations* (fast or pounding heart beat).

EXTREMITIES: **ataxia** (clumsiness or unsteadiness); *edema* (swelling of feet or lower legs); *motor fluctutations* (long-term levodopa therapy); *phlebitis* (pain, tenderness, or swelling of foot or leg).

SLEEP: *insomnia* (trouble in sleeping).

DREAMS: **nightmares**.

PERSPIRATION: *darkening in color of sweat*; *sweating, increased*

SKIN: *flushing*; *rash*

GENERALITIES: **fatigue** (unusual tiredness or weakness); **malaise** (general feeling of discomfort or illness); **weakness**; *cardiac irregularities* (fast, irregular, or pounding heart beat); *hot flashes*; *hypotension, orthostatic* (dizziness or lightheadedness when getting up from a lying or sitting position); *palpitations* (fast or pounding heart beat); *tiredness or weakness, unusual*; *weight gain or loss, unusual*; *agranulocytosis* (chills; fever; sore throat; unusual tiredness or weakness); *anemia, hemolytic* (back, leg, or stomach pain; fever; loss of appetite; pale skin; unusual tiredness or weakness); *edema* (swelling of face; swelling of feet or lower legs; unusual weight gain); *hypertension* (high blood pressure); *motor fluctutations* (long-term levodopa therapy); *seizures*.

DIAGNOSTIC TESTS: *darkening in color of urine*; *agranulocytosis*; *anemia, hemolytic*.

Secondary Actions or Rebound Effects: **movements, choreiform and/or dystonic** (unusual and uncontrolled movements of the body, including the face, tongue, arms, hands, head, and upper body); **tremor, hand, increased**; *twitching, muscle*; *syndrome resembling neuroleptic malignant syndrome* (intermittent dystonia alternating with substantial agitation, hyperthermia, and mental changes); *dyskinesias* (long-term levodopa therapy) (may include peak-dose [or square-wave] dyskinesias (appearing during maximum effect), biphasic dyskinesias [appearing at beginning and end of dosing period], and focal or generalized dystonia).

Levofloxacin (Ophthalmic)

Commercial name(s): *Quixin*.

Category: Antibacterial (ophthalmic).

Conventional indications: Conjunctivitis, bacterial (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

EYE: allergic reactions (itching, pain, redness, or swelling of eye or eyelid; watering of eyes); burning; dryness; edema, lid (swelling of eyelid); itching; pain; photophobia (increased sensitivity of eyes to light); sensation, foreign body (feeling of having something in the eye).

VISION: decreased vision.

THROAT: pharyngitis (body aches or pain; congestion; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

FEVER: fever.

Levofloxacin (Systemic)

Commercial name(s): *Levaquin*.

Category: Antibacterial (systemic).

Conventional indications: Anthrax, inhalation (treatment); Bronchitis, bacterial exacerbations (treatment); Pneumonia, community-acquired (treatment); Pneumonia, nosocomial (treatment); Prostatitis, bacterial (treatment); Pyelonephritis (treatment); Sinusitis (treatment); Skin and soft tissue infections, uncomplicated (treatment); Skin and soft tissue infections, complicated (treatment); Urinary tract infections, bacterial, uncomplicated (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: nervousness; agitation; confusion; hallucinations; psychosis, acute; prostration (single high dose in mice, rats, dogs, and monkeys).

VERTIGO: dizziness; lightheadedness.

HEAD: headache.

EYE: ptosis (single high dose in mice, rats, dogs, and monkeys).

MOUTH: taste perversion (change in sense of taste).

THROAT: dysphonia (hoarseness; sore throat; voice changes).

STOMACH: discomfort; nausea; pain; vomiting.

ABDOMEN: discomfort, abdominal; pain, abdominal; colitis, pseudomembranous (abdominal or stomach cramps and pain, severe; abdominal tenderness; diarrhea, watery and severe, which may also be bloody; fever).

RECTUM: constipation (rebound effect?); diarrhea.

GENITALIA FEMALE: candidiasis, vaginal (vaginal itching and discharge).

RESPIRATION: dyspnea (single high dose in mice, rats, dogs, and monkeys).

CHEST: pneumonitis, allergic (difficult breathing); torsades de pointes (fast heartbeat; prolonged QT interval).

EXTREMITIES: *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness); *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *tendonitis or tendon rupture* (pain, inflammation, or swelling in calves, shoulders, or hands); ataxia (single high dose in mice, rats, dogs, and monkeys); locomotor activity, decreased (single high dose in mice, rats, dogs, and monkeys).

SLEEP: *drowsiness; trouble in sleeping.*

SKIN: *erythema multiforme* (blistering, peeling, loosening of skin; itching; joint or muscle pain); *hypersensitivity reactions* (skin rash, itching, or redness); *phototoxicity* (blisters; itching; rash; redness; sensation of skin burning; swelling).

GENERALITIES: *vasodilation* (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or light-headedness; sweating); *anaphylactoid reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *anemia, hemolytic* (bleeding gums; dark urine; fatigue; general body swelling); *encephalopathy* (blurred vision; coma; confusion; dizziness); *eosinophilia* (black, tarry stools; sore throat; swollen glands; unusual bleeding or bruising); *erythema multiforme* (blistering, peeling, loosening of skin; itching; joint or muscle pain); *multi-system organ failure* (failure of the heart, lungs, kidneys and/or liver); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness); *shock, anaphylactic* (sharp drop in blood pressure; hives); *Stevens-Johnson Syndrome* (blistering, peeling, loosening of skin; diarrhea; itching; red skin); *stimulation, central nervous system (CNS)* (agitation; confusion; hallucinations; psychosis, acute; tremors); *tendonitis or tendon rupture* (pain, inflammation, or swelling in calves, shoulders, or hands); *tremors*; death (in rodents); prostration (single high dose in mice, rats, dogs, and monkeys); seizures (single high dose in mice, rats, dogs, and monkeys).

DIAGNOSTIC TESTS: *anemia, hemolytic* (bleeding gums; dark urine; fatigue; general body swelling); *electroencephalogram, abnormal* (abnormal brain waves); *eosinophilia* (black, tarry stools; sore throat; swollen glands; unusual bleeding or bruising); *international normalized ratio/prothrombin time increased* (increased bleeding time).

Levomethadyl (Systemic)

Commercial name(s): *Orlaam.*

Category: Opioid (narcotic) abuse therapy adjunct.

Conventional indications: Opioid (narcotic) drug use, illicit (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness; sexual problems in males; anxiety; depression, mental; desire for sex, decreased; depression; dysphoria; feeling “wired”* (stimulation); confusion; nervousness; restlessness; unconsciousness.

VERTIGO: *hypotension, postural* (dizziness, lightheadedness, or feeling faint when rising from a lying or sitting position); dizziness, severe.

HEAD: *headache* (rebound effect?).

EYE: *watery eyes*; pinpoint pupils.

VISION: *blurred vision*.

NOSE: *runny nose*; *sneezing*.

FACE: *edema* (swelling of face).

MOUTH: *dryness*.

STOMACH: *nausea*; *vomiting*; *appetite, loss of*.

ABDOMEN: *pain, abdominal*.

RECTUM: *constipation*; *diarrhea* (rebound effect).

URINE: *pyuria*.

GENITALIA MALE: *sexual problems in males*; *desire for sex, decreased*

GENITALIA FEMALE: *desire for sex, decreased*; *amenorrhea*.

RESPIRATION: *apnea*; *depression, respiratory* (blue lips, fingernails, or skin; slow or troubled breathing).

COUGH: *coughing*.

CHEST: *arrest, cardiac*; *edema, pulmonary*; *heartbeat, slow*.

BACK: *pain, back*.

EXTREMITIES: *pain, joint*; *edema* (swelling of fingers, feet, and/or lower legs); *pain, muscle*; *weakness, muscle*.

SLEEP: *trouble in sleeping* (rebound effect); *drowsiness*; *yawning*.

DREAMS: *unusual dreams*.

CHILL: *chills*.

PERSPIRATION: *sweating* (rebound effect?).

SKIN: *rash*; *cold, clammy skin*.

GENERALITIES: *feeling of discomfort or illness, general*; *pain, joint*; *weakness*; *edema* (swelling of face, fingers, feet, and/or lower legs; weight gain); *flu-like syndrome*; *hot flashes*; *sense of well-being, false*; *sensitivity to stimulation, decreased*; *hepatitis*; *hypotension, postural* (dizziness, lightheadedness, or feeling faint when rising from a lying or sitting position); *lack of energy*; *pain, muscle*; *blood pressure, low*; *death*; *heartbeat, slow*; *shock*; *weakness, muscle* (rebound effect?).

DIAGNOSTIC TESTS: *electrocardiographic irregularities* (including prolongation of the QT interval and nonspecific ST-T wave changes); *liver function test abnormalities*; *pyuria*.

Secondary Actions or Rebound Effects: *aches, body*; *cramps, stomach*; *diarrhea*; *fever, unexplained*; *gooseflesh*; *heartbeat, fast*; *irritability*; *nausea*; *nervousness*; *pupils of eyes, large, unusually*; *restlessness*; *shivering*; *sweating, increased*; *trembling*; *trouble in sleeping*; *vomiting*; *weakness*; *yawning*.

Lidocaine (Systemic)

Commercial name(s): *Xylocaine*; *Xylocard*.

Category: Antiarrhythmic.

Conventional indications: Arrhythmias, ventricular (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety* (dose-related); *nervousness* (dose-related).

VERTIGO: *dizziness* (dose-related); fainting.

VISION: blurred vision; double vision.

HEARING: ringing.

STOMACH: nausea; vomiting

RESPIRATION: *arrest, respiratory*; difficulty in breathing.

CHEST: *arrest, cardiac; arrhythmias* (rebound effect?); *block, heart; cardiac conduction disturbances*; heartbeat, slow.

SLEEP: *drowsiness* (dose-related).

GENERALITIES: *pain at site of injection* [prolonged intravenous use]; *allergic reaction* (difficulty in breathing; itching; skin rash; swelling of skin); *arrhythmias* (rebound effect?); *feelings of coldness, heat, or numbness* (dose-related); *hypotension*; heartbeat, slow; seizures; tremors; twitching.

Lidocaine (Topical)

Commercial name(s): *Lidoderm*.

Category: Anesthetic (local).

Conventional indications: Postherpetic neuralgia (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; apprehension; confusion; disorientation; euphoria; loss of consciousness; nervousness*.

VERTIGO: *dizziness; lightheadedness*.

HEAD: *headache*.

VISION: *blurry vision; double vision; visual disturbances*.

HEARING: *ringing; tinnitus* (continuing ringing or buzzing or other unexplained noise in ears; hearing loss).

FACE: *angioedema* (swelling of face).

MOUTH: *angioedema* (swelling of mouth); *taste alteration; taste, metallic*.

STOMACH: *nausea; vomiting*.

RESPIRATION: *bronchospasm* (cough; shortness of breath; wheezing); *hypoxia; slowed breathing*

CHEST: *arrest, cardiac; block, heart; bradycardia; bronchospasm* (cough; shortness of breath; wheezing).

EXTREMITIES: *angioedema* (swelling of hands, or feet).

SLEEP: *drowsiness; somnolence* (sleepiness or unusual drowsiness).

SKIN: **skin reactions, localized** (abnormal feeling at application site; itching; rash); *flushing; irritation; urticaria* (hives; itching and redness of skin; swelling).

GENERALITIES: *anesthesia; acidosis; allergic and anaphylactoid reactions* (including angioedema, bronchospasm, shock, urticaria); *asthenia* (lack or loss of strength);

bradycardia; *CNS depression* (drowsiness; loss of consciousness; slowed breathing); *CNS stimulation* (anxiety; apprehension; blurry or double vision; confusion; convulsions (seizures) (rebound effect?); dizziness or drowsiness; euphoria; light-headedness; nausea and vomiting; nervousness; ringing ears; sensations of cold, heat, or numbness; twitching or shaking); *convulsions* (seizures); *hyperesthesia* (increased sensitivity to pain, increased sensitivity to touch, tingling in the hands and feet) (rebound effect); *hypoesthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *hypersensitivity reactions* (difficulty in breathing and/or swallowing; fever; hives; nausea; reddening of the skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness); *hypotension*; *hypoxia*; *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *sensations of cold, heat, or numbness*; *shock* (fast heartbeat; rapid, shallow breathing; sweating or clammy skin; weakness); *tremor*.

DIAGNOSTIC TESTS: *acidosis*; *hypoxia*.

Lidocaine and Prilocaine (Topical)

Commercial name(s): *EMLA*.

Category: Anesthetic, local.

Conventional indications: Anesthesia, local.

Primary Actions or Pathogenetic Symptoms

SKIN: **skin reactions, localized** (burning feeling, swelling, itching, or skin rash at place of application).

GENERALITIES: *anesthesia*; **vasoconstriction** (very white skin at place of application); **vasodilatation** (red skin at place of application) (rebound effect?); *CNS stimulation* (signs and symptoms may include apprehension, nervousness, or euphoria; confusion; dizziness, light-headedness, or drowsiness; blurred or double vision; nausea and vomiting; ringing or buzzing in the ears; sensations of heat, cold, or numbness; and twitching, tremors, or convulsions) (rebound effect?); *CNS depression* (drowsiness, unconsciousness, and respiratory depression and arrest); *depression, cardiovascular* (bradycardia and hypotension; if treatment is not initiated promptly, decreases in cardiac output, total peripheral resistance, and mean arterial pressure may occur and may progress to hypoxia, acidosis, heart block, and cardiac arrest); *methemoglobinemia* (blue or blue-purple color of lips, fingernails, or skin; fatigue; weakness; breathing problems; rapid heartbeat; headache; dizziness; collapse; altered mental status; dark urine); convulsions.

DIAGNOSTIC TESTS: *methemoglobinemia*.

Lincomycin (Systemic)

Commercial name(s): *Lincocin*; *Lincorex*.

Category: Antibacterial (systemic).

Conventional indications: Infections caused by susceptible strains of streptococci, pneumococci, and staphylococci (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: nausea; vomiting.

ABDOMEN: colitis, pseudomembranous (abdominal or stomach cramps and pain, severe; abdominal tenderness; diarrhea, watery and severe, which may also be bloody; fever); pain, abdominal.

RECTUM: diarrhea; fungal overgrowth (itching of rectal area).

GENITALIA MALE: fungal overgrowth (itching of genital areas).

GENITALIA FEMALE: fungal overgrowth (itching of genital areas).

SKIN: hypersensitivity (skin rash, redness, and itching); purpura, thrombocytopenic (unusual bleeding or bruising).

GENERALITIES: neutropenia (sore throat and fever); purpura, thrombocytopenic (unusual bleeding or bruising).

DIAGNOSTIC TESTS: neutropenia (sore throat and fever).

Lindane (Topical)

Commercial name(s): *Hexit; Kwell; PMS Lindane; Thionex.*

Category: Pediculicide [Lindane Shampoo; Lindane Cream; Lindane Lotion]; Scabicide [Lindane Cream; Lindane Lotion].

Conventional indications: Pediculosis capitis (treatment, secondary), or Pediculosis pubis (treatment, secondary) [Lindane shampoo, [cream], and [lotion]]; Scabies (treatment, secondary) [Lindane cream and lotion].

Primary Actions or Pathogenetic Symptoms

MIND: clumsiness; irritability; nervousness; restlessness

VERTIGO: dizziness.

HEAD: alopecia; headache; itching; pain; pruritus.

STOMACH: vomiting.

CHEST: heartbeat, fast.

EXTREMITIES: clumsiness; cramps, muscle; unsteadiness.

SKIN: dermatitis; irritation not present before therapy; rash; urticaria.

GENERALITIES: convulsions; cramps, muscle; death; heartbeat, fast; paresthesia; seizures.

Linezolid (Systemic)

Commercial name(s): Zyvox; Zyvox.

Category: Antibacterial (systemic).

Conventional indications: Pneumonia, community-acquired (treatment) [Intravenous and oral linezolid]; Pneumonia, nosocomial (treatment) [Intravenous and oral linezolid]; Skin and soft tissue infections, complicated (treatment) [Intravenous and oral linezolid]; Skin and soft tissue infections, uncomplicated (treatment) [Oral linezolid]; Vancomycin-resistant *Enterococcus faecium* infections [Intravenous and oral linezolid].

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness

HEAD: headache.

EYE: *neuropathy, optic* (blindness; blurred vision; decreased vision; eye pain).

VISION: *acuity, visual, changes in; blurred vision; color vision, changes in; visual field defects*.

MOUTH: discoloration, tongue; dysgeusia (bad taste in the mouth; change in sense of taste; loss of taste); moniliasis, oral (sore mouth or tongue; white patches in mouth, tongue, or throat).

THROAT: moniliasis, oral (sore mouth or tongue; white patches in mouth, tongue, or throat).

STOMACH: nausea; vomiting.

ABDOMEN: colitis, pseudomembranous (abdominal cramps or pain, severe; diarrhea, severe and watery, may also be bloody; fever).

RECTUM: diarrhea.

GENITALIA FEMALE: moniliasis, vaginal (discharge from the vagina; itching of the vagina).

EXTREMITIES: *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness).

GENERALITIES: anemia (unusual tiredness or weakness); leukopenia (chills; cough; fever; hoarseness; lower back or side pain; painful or difficult urination); pancytopenia (exertional dyspnea; headache; unusual tiredness or weakness); thrombocytopenia (black, tarry stools; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); acidosis, lactic (abdominal discomfort; decreased appetite; diarrhea; fast, shallow breathing; general feeling of discomfort; muscle pain or cramping; nausea; shortness of breath; sleepiness; unusual tiredness or weakness); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness); *Serotonin syndrome* (in patients receiving concomitant serotonergic agents) (cognitive dysfunction, hyperpyrexia, hyperreflexia, incoordination).

DIAGNOSTIC TESTS: anemia; leukopenia; pancytopenia; thrombocytopenia; *bicarbonate level, low*.

Lithium (Systemic)

Commercial name(s): *Carbolith; Cibalith-S; Duralith; Eskalith; Eskalith CR; Lithane; Lithizine; Lithobid; Lithonate; Lithotabs*.

Category: Antimanic; Antidepressant therapy adjunct; Granulopoietic; Vascular headache prophylactic.

Conventional indications: Bipolar disorder (treatment); Depression, mental (treatment); Headache, vascular (prophylaxis); Neutropenia (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: blackout spells; confusion; memory, poor; speech, slurred; stupor; depression, mental.

VERTIGO: dizziness; fainting.

HEAD: hair loss; pseudotumor cerebri (dizziness; eye pain; headache; nausea or vomiting; noises in ears; vision problems).

VISION: blurred vision.

HEARING: tinnitus (ringing in the ears).

MOUTH: speech, slurred.

THROAT: hoarseness.

EXTERNAL THROAT: hypothyroidism; swelling of neck.

STOMACH: nausea, mild; thirst, increased; pressure in the stomach; appetite, loss of; vomiting.

ABDOMEN: bloated feeling.

RECTUM: diarrhea.

BLADDER: incontinence, stress (increased frequency of urination; loss of bladder control); urgency, urinary (increased frequency of urination; loss of bladder control); amount of urine, increase in.

KIDNEYS: diabetes insipidus, nephrogenic (frequent urination; increased thirst).

URINE: glucose in the urine; protein in the urine.

RESPIRATION: dyspnea on exertion (troubled breathing).

CHEST: heartbeat, fast or slow; pulse, irregular; block sinoatrial; impairment, sinus node function; irritability, ventricular.

EXTREMITIES: trembling of hands, slight; twitching, muscle, slight; blue color and pain in fingers and toes; coldness of arms and legs; swelling of feet or lower legs; ataxia (clumsiness or unsteadiness); coordination, lack of; weakness, muscle.

SLEEP: drowsiness.

SKIN: acne; rash; dry, rough skin; hair loss; psoriasis, psoriasiform eruption [1].

GENERALITIES: granulopoiesis; diabetes insipidus, nephrogenic (frequent urination; increased thirst); extrapyramidal symptoms (muscle dysfunction or rigidity); heartbeat, fast or slow; leukocytosis (unusual tiredness or weakness); pulse, irregular; twitching, muscle, slight; weight gain; hair loss; hypothyroidism; sensitivity to cold; convulsions; trembling; weakness, muscle.

DIAGNOSTIC TESTS: granulopoiesis; glucose in the urine; protein in the urine; leukocytosis; block sinoatrial; hypothyroidism.

Complementary Bibliography: [1] Kim GK, Del Rosso JQ. Drug-provoked psoriasis: is it drug induced or drug aggravated? Understanding pathophysiology and clinical relevance. *J Clin Aesthet Dermatol* 2010; 3(1): 32-38.

Secondary Actions or Rebound Effects: mania (unusual excitement).

Lodoxamide (Ophthalmic)

Commercial name(s): Alomide.

Category: Mast cell stabilizer (ophthalmic); Antiallergic (ophthalmic).

Conventional indications: Conjunctivitis, allergic or atopic (treatment); Conjunctivitis, giant papillary (treatment); Conjunctivitis, vernal (treatment); Keratitis, vernal (treatment); Keratoconjunctivitis, vernal (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

EYE: **burning, transient, upon administration of medication; stinging, transient, upon administration of medication; aching; deposits, crystalline** (crusting in corner of eye or on eyelid); **discharge; discomfort; dryness; fatigue, ocular** (tired eyes); **feeling, sticky; hyperemia** (redness of eye); **irritation not present before therapy or becoming worse during therapy** (rebound effect?); **pruritus** (itching of eye); **scales on eyelid or eyelash; sensation, foreign body** (feeling of something in eye); **sensation, warming, ocular** (feeling of heat in eye); **tearing; blepharitis** (eyelid irritation or redness); **abrasion, corneal** (eye irritation or redness); **cells, anterior chamber** (sensitivity of eyes to light, eye discomfort, eye redness); **chemosis** (swelling of the membrane covering the white part of the eye); **erosion, corneal** (eye irritation or redness); **keratitis** (eye irritation or redness); **keratopathy** (eye irritation or redness); **mucus from eye; pain, eye, not present before therapy or becoming worse during therapy; ulcer, corneal** (eye irritation or redness).

VISION: *blurred vision.*

NOSE: *dryness; sneezing.*

STOMACH: *discomfort; nausea.*

SLEEP: *somnolence* (drowsiness or sleepiness).

SKIN: *rash.*

GENERALITIES: *heat sensation on body.*

Lomustine (Systemic)

Commercial name(s): *CeeNU.*

Category: Antineoplastic.

Conventional indications: Tumors, brain, primary (treatment); Carcinoma, colorectal (treatment); Carcinoma, lung, non-small cell (treatment); Carcinoma, breast (treatment); Lymphomas, Hodgkin's (treatment); Multiple myeloma (treatment); Melanoma, malignant (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *hair, loss of.*

MOUTH: *stomatitis* (sores in mouth and on lips).

STOMACH: **appetite, loss of; nausea; vomiting.**

ABDOMEN: *hepatotoxicity.*

RECTUM: *diarrhea.*

KIDNEYS: *toxicity and failure, renal* (decrease in urination; swelling of feet or lower legs).

CHEST: *infiltrates and/or fibrosis, pulmonary* (cough; shortness of breath).

SKIN: *darkening of skin; hair, loss of; itching; rash.*

GENERALITIES: **immunosuppression or infection or leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *anemia* (unusual tiredness or weakness); *hair, loss of; neurotoxicity* (awkwardness; confusion; slurred speech; unusual tiredness); *bone marrow depression* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); *myelosuppression, cumulative.*

DIAGNOSTIC TESTS: **leukopenia; thrombocytopenia; anemia; bone marrow depression; myelosuppression, cumulative.**

Loperamide (Oral-Local)

Commercial name(s): *Apo-Loperamide; Diarr-Eze; Imodium; Imodium A-D; Imodium A-D Caplets; Kaopectate II; Loperacap; Maalox Anti-Diarrheal; Nu-Loperamide; PMS-Loperamide; Pepto Diarrhea Control; Rho-Loperamide.*

Category: Antidiarrheal.

Conventional indications: Diarrhea (treatment); Traveler's diarrhea (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

MOUTH: *dryness.*

STOMACH: irritation, gastrointestinal (animal pharmacological and toxicological data).

ABDOMEN: *megacolon, toxic* (bloating; constipation; loss of appetite; severe stomach pain with nausea and vomiting); irritation, gastrointestinal (animal pharmacological and toxicological data).

RECTUM: *constipation.*

SLEEP: *drowsiness.*

SKIN: *allergic reaction* (skin rash).

GENERALITIES: CNS depression (animal pharmacological and toxicological data).

Lopinavir and Ritonavir (Systemic)

Commercial name(s): *Kaletra.*

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus (HIV) infection (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache.*

STOMACH: *nausea; dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); *vomiting.*

ABDOMEN: *pain, abdominal; pancreatitis, possibly fatal* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; pains in stomach, side, or abdomen, possibly radiating to the back; yellow eyes or skin).

RECTUM: *diarrhea.*

STOOL: *abnormal stools.*

CHEST: *bradyarrhythmias* (chest pain or discomfort; lightheadedness, dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness).

SLEEP: *insomnia* (trouble in sleeping).

SKIN: *rash; erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

GENERALITIES: *asthenia* (lack or loss of strength); *diabetes mellitus or hyperglycemia* (blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; loss of consciousness; nausea; stomachache; sweating; troubled breathing; unexplained weight loss; vomiting); *pain; body fat, redistribution of* (central obesity, dorsocervical fat enlargement (buffalo hump), peripheral wasting, breast enlargement, and “cushingoid appearance”); *bradyarrhythmias* (chest pain or discomfort; lightheadedness, dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *Stevens Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *hyperglycemia; abnormalities in serum lipase or amylase values.*

Loracarbef (Systemic)

Commercial name(s): *Lorabid.*

Category: Antibacterial (systemic).

Conventional indications: Bronchitis, bacterial exacerbation of (treatment); Otitis media (treatment); Pharyngitis, streptococcal (treatment); Pneumonia (treatment); Sinusitis (treatment); Skin and soft tissue infections (treatment); Urinary tract infections, bacterial (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness.*

VERTIGO: *dizziness.*

HEAD: *headache.*

STOMACH: *anorexia; nausea; vomiting.*

ABDOMEN: *pain, abdominal.*

RECTUM: *diarrhea.*

GENITALIA FEMALE: *vaginitis* (vaginal itching and discharge).

SLEEP: *drowsiness; insomnia.*

SKIN: *hypersensitivity* (itching; skin rash).

Losartan (Systemic)

Commercial name(s): *Cozaar*.

Category: Antihypertensive; Angiotensin II receptor antagonist.

Conventional indications: Hypertension (treatment); Hypertension with left ventricular hypertrophy (treatment); Nephropathy, diabetic (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *angioedema* (large, hive-like swelling on eyelids).

NOSE: *congestion, nasal; sinus problems* (sinusitis).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

RECTUM: *diarrhea*.

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: *infection, upper respiratory* (cough, fever, or sore throat).

COUGH: *cough, dry*.

CHEST: bradycardia due to vagal stimulation; tachycardia.

BACK: *pain, back*.

EXTREMITIES: *angioedema* (large, hive-like swelling on hands, legs, feet); *cramps, muscle; rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *pain, leg or muscle*.

SLEEP: *insomnia* (trouble in sleeping).

SKIN: *purpura* (blood in urine; bloody or black, tarry stools; fever; large, flat, blue or purplish patches in the skin; painful knees and ankles; raised red swellings on the skin, the buttocks, legs or ankles; stomach pain).

GENERALITIES: *hypotension; fatigue; infection, upper respiratory* (cough, fever, or sore throat); *cramps, muscle; hepatitis* (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); *hyperkalemia* (dizziness; fast heartbeat; high blood pressure; irritability; muscle twitching; restlessness; seizures; swelling of feet or lower legs; weakness); *hyponatremia* (coma; confusion; convulsions; decreased urine output; dizziness; fast or irregular heartbeat; headache; increased thirst muscle pain or cramps nausea or vomiting shortness of breath swelling of face, ankles, or hands unusual tiredness or weakness); *pain, muscle; rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *sinus problems* (sinusitis); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *vasculitis including Henoch-Schonlein purpura* (blood in urine; bloody or black, tarry stools; fever; large, flat, blue or purplish patches in the skin);

painful knees and ankles; raised red swellings on the skin, the buttocks, legs or ankles; stomach pain); bradycardia due to vagal stimulation; tachycardia.

DIAGNOSTIC TESTS: *hyperkalemia; hyponatremia; thrombocytopenia.*

Losartan and Hydrochlorothiazide (Systemic)

Commercial name(s): *Hyzaar.*

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

EYE: *angioedema* (large, hive-like swelling on eyelids).

NOSE: *sinusitis* (sinus problems).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

STOMACH: *pain, abdominal* (stomach pain).

ABDOMEN: *pain, abdominal* (stomach pain); *cholecystitis* (severe stomach pain with nausea and vomiting); *pancreatitis* (severe stomach pain with nausea and vomiting).

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: *infection, upper respiratory tract* (cough, fever, or sore throat).

COUGH: *cough.*

CHEST: *palpitations* (pounding heartbeat); bradycardia due to vagal stimulation; tachycardia.

BACK: *pain, back.*

EXTREMITIES: *angioedema* (large, hive-like swelling on hands, legs, feet); *edema* (swelling of feet or lower legs); *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness).

SKIN: *photosensitivity* (increased sensitivity of skin to sunlight); *rash.*

GENERALITIES: *hypotension; infection, upper respiratory tract* (cough, fever, or sore throat); *agranulocytosis* (cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination); *electrolyte imbalance, especially hypokalemia* (dryness of mouth; increased thirst; irregular heartbeat; muscle cramps or pain; nausea or vomiting; unusual tiredness or weakness; weak pulse); *hepatitis* (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); *hyperkalemia* (dizziness; fast heartbeat; high blood pressure; irritability; muscle twitching; restlessness; seizures; swelling of feet or lower legs; weakness); *hyponatremia* (coma; confusion; convulsions; decreased urine output; dizziness; fast or irregular heartbeat; headache; increased thirst; muscle pain or cramps; nausea or vomiting; shortness of breath; swelling of face, ankles, or hands; unusual tiredness or weakness); *palpitations* (pounding heartbeat); *rhabdomyolysis* (dark-colored urine; fever; muscle

cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *sinusitis* (sinus problems); *thrombocytopenia* (black, tarry stools; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *vasculitis, including Henoch-Schonlein purpura* (blood in urine; bloody or black, tarry stools; fever; large, flat, blue or purplish patches in the skin; painful knees and ankles; raised red swellings on the skin, the buttocks, legs or ankles; stomach pain); bradycardia due to vagal stimulation; dehydration; tachycardia.

DIAGNOSTIC TESTS: *electrolyte imbalance, especially hypokalemia; agranulocytosis; hyperkalemia; hyponatremia; thrombocytopenia; electrolyte depletion.*

Loteprednol (Ophthalmic)

Commercial name(s): *Alrex; Lotemax.*

Category: Corticosteroid (ophthalmic); Anti-inflammatory (steroidal), ophthalmic.

Conventional indications: Conjunctivitis, seasonal allergic (treatment); Inflammation, postoperative (treatment); Ocular conditions, inflammatory (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

EYE: burning when medicine is applied; chemosis (swelling of the membrane covering the white part of the eye); dryness; epiphora (watery eye); injection (redness or swelling of the eye); itching; photophobia (increased sensitivity of eyes to light); sensation, foreign body (feeling of something in the eye); *conjunctivitis* (redness of eye, eyelid, or inner lining of eyelid); *corneal abnormalities; discharge, ocular* (discharge from the eye); *discomfort; erythema, eyelid* (redness of eyelid); *irritation; keratoconjunctivitis* (redness of eye, eyelid, or inner lining of eyelid); *pain; papillae* (tiny bumps on the inner lining of eyelid); *pressure, intraocular, increased; uveitis* (eye pain, tearing, sensitivity of eye to light, redness of eye, or blurred vision or other change in vision); *cataract formation, subcapsular, posterior* (prolonged use of corticosteroids); *damage to the optic nerve* (prolonged use of corticosteroids); *glaucoma* (prolonged use of corticosteroids); *infections, ocular, secondary* (including herpes simplex, due to suppression of host response); *perforation of the globe where there is thinning of the cornea or sclera.*

VISION: blurred vision; changes in vision; defects in visual acuity and visual fields (prolonged use of corticosteroids).

NOSE: rhinitis (runny nose).

THROAT: pharyngitis (sore throat).

Loteprednol and Tobramycin (Ophthalmic)

Commercial name(s): *Zylet.*

Category: Anti-inflammatory (steroidal), ophthalmic; Corticosteroid (ophthalmic); Antibacterial (ophthalmic).

Conventional indications: Inflammation, ocular (treatment); Ocular infections, superficial (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

EYE: burning; itching; keratitis, punctate, superficial (painful irritation of the clear front part of the eye); lacrimation disorder (dry eyes); photophobia (increased sensitivity of eyes to light); pressure, intraocular, increased; stinging; deposits, corneal (irritation and swelling of the eye; decreased vision or any change in vision); discharge, ocular (discharge from the eye); discomfort, ocular (pain in eye); erythema, conjunctival (redness of lid); eyelid disorder (eyelid burning, redness, itching, pain, or tenderness); itching and swelling, lid; toxicity, ocular (blurred vision or blue-green halos seen around objects dry eyes sensitivity of eyes to light); infection, ocular, bacterial (blurred vision or other change in vision; eye pain; redness of eye; sensitivity of eye to light; tearing).

VISION: vision disorders (blurred vision or other changes in vision).

GENERALITIES: hypersensitivity (fast heartbeat; fever; hives; itching; irritation; hoarseness; joint pain; stiffness or swelling; rash; redness of skin; shortness of breath; swelling of eyelids, face, lips, hands, or feet; tightness in chest; troubled breathing or swallowing; wheezing).

Loxapine (Systemic)

Commercial name(s): Loxapac; Loxitane; Loxitane C; Loxitane IM.

Category: Antipsychotic; Antianxiety agent-antidepressant.

Conventional indications: Psychotic disorders (treatment); Anxiety associated with mental depression (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: akathisia (restlessness or need to keep moving); confusion; comatose state.

VERTIGO: dizziness; hypotension, orthostatic (dizziness, lightheadedness, or fainting).

HEAD: headache.

VISION: blurred vision.

MOUTH: dryness.

STOMACH: nausea; upset stomach; vomiting.

RECTUM: constipation, mild to severe (may lead to paralytic ileus).

BLADDER: urination, difficult.

GENITALIA MALE: sexual ability, decreased.

GENITALIA FEMALE: periods, menstrual, missing; sexual ability, decreased.

RESPIRATION: troubled breathing, severe.

CHEST: enlargement of breasts, in males and females; secretion of milk, unusual.

EXTREMITIES: akathisia (restlessness or need to keep moving); tardive dyskinesia, persistent (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled movements of the arms and legs; uncontrolled chewing movements) (rebound effect?); trembling, jerking, stiffness, or uncontrolled movements, muscle, severe.

SLEEP: drowsiness; trouble in sleeping.

SKIN: allergic reaction (skin rash); sensitivity to sun, increased.

GENERALITIES: **extrapyramidal effects, parkinsonian** (difficulty in speaking or swallowing; loss of balance control; mask-like face; shuffling walk; slowed movements; stiffness of arms and legs; trembling and shaking of fingers and hands); **hypotension, orthostatic** (dizziness, lightheadedness, or fainting); anticholinergic effect (difficult urination); extrapyramidal effects, dystonic (difficulty in swallowing; inability to move eyes; muscle spasms, especially of the neck and back; twisting movements of body); weight gain; agranulocytosis (sore throat and fever; unusual bleeding or bruising); jaundice, obstructive (yellow eyes or skin); neuroleptic malignant syndrome [NMS] (convulsions; difficult or unusually fast breathing; fast heartbeat or irregular pulse; high fever; high or low [irregular] blood pressure; increased sweating; loss of bladder control; severe muscle stiffness or rigidity; unusual tiredness or weakness; unusually pale skin; leukocytosis, elevated liver function tests, and elevated creatine phosphokinase (CPK)); comatose state; tiredness or weakness, unusual, severe.

DIAGNOSTIC TESTS: *agranulocytosis*.

Secondary Actions or Rebound Effects: **tardive dyskinesia, persistent** (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled movements of the arms and legs; uncontrolled chewing movements); *dyskinesia, withdrawal emergent* (uncontrolled, repetitive movements of mouth, tongue, and jaw); *tardive dystonia; trembling of fingers and hands*.

Lutropin Alfa (Systemic)

Commercial name(s): *Luveris*.

Category: Gonadotropin; Infertility therapy adjunct.

Conventional indications: Infertility, female (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

STOMACH: nausea; **pain, abdominal** (stomach pain).

ABDOMEN: **flatulence** (bloated full feeling; excess air or gas in stomach or intestines; passing gas); **pain, abdominal** (stomach pain); *hemoperitoneum* (blood in the peritoneal cavity) (during menotropin therapy).

RECTUM: constipation (difficulty having a bowel movement [stool]); *diarrhea*.

GENITALIA FEMALE: **fertility adjunct; cyst, ovarian** (bloating; stomach or pelvic discomfort, aching, or heaviness); **hyperstimulation, ovarian** (abdominal pain; bloating; diarrhea; severe nausea; rapid weight gain; vomiting); dysmenorrhea (pain; cramps; heavy bleeding); ovarian disorder; *abortion, spontaneous; enlargement, ovarian, mild to moderate* (during menotropin therapy); *labor, premature; pregnancy, ectopic; torsion, adnexal* (during menotropin therapy); multiple gestation.

RESPIRATION: infection, upper respiratory tract (ear congestion; nasal congestion; chills; cough; fever; sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *complications, pulmonary* (shortness of breath or troubled breathing) (during menotropin therapy).

CHEST: **pain, breast, female;** *complications, pulmonary* (shortness of breath or troubled breathing) (during menotropin therapy).

FEVER: *fever, postpartum.*

GENERALITIES: *fertility adjunct; fatigue* (unusual tiredness or weakness); **injection site reaction** (bleeding, blistering, burning, coldness, discoloration of skin, feeling of pressure, hives, infection, inflammation, itching, lumps, numbness, pain, rash, redness, scarring, soreness, stinging, swelling, tenderness, tingling, ulceration, or warmth at injection site); **pain;** *infection, upper respiratory tract* (ear congestion; nasal congestion; chills; cough; fever; sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *complications, vascular* (changes in skin color; cold hands and feet; pain, redness, or swelling in arm or leg) (during menotropin therapy); *congenital abnormalities* (subsequent to pregnancy).

Lyme Disease Vaccine (Systemic)

Other commonly used names: Lyme disease vaccine (recombinant OspA).

Commercial name(s): *LYMErix.*

Category: Immunizing agent (active).

Conventional indications: Lyme disease (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *depression.*

VERTIGO: *dizziness.*

HEAD: **headache.**

NOSE: *rhinitis* (stuffy nose); *sinusitis* (headache).

THROAT: *pharyngitis* (sore throat).

RECTUM: *diarrhea.*

RESPIRATION: *bronchitis* (cough); *infection, upper respiratory tract* (cough; fever; runny or stuffy nose; sneezing; sore throat).

CHEST: *bronchitis* (cough).

BACK: **pain, back.**

EXTREMITIES: **arthralgia, and/or arthritis** (pain in joints); **myalgia** (pain in muscles).

CHILL: *rigors or chills* (feeling unusually cold; shivering).

FEVER: *fever.*

SKIN: *dermatitis, contact* (skin rash, itching, redness, swelling, or other sign of irritation not present before vaccination); *hypersensitivity* (skin rash, itching, redness, swelling, or other sign of irritation not present before vaccination).

GENERALITIES: **arthralgia, and/or arthritis** (pain in joints); **fatigue** (unusual tiredness or weakness); **hyperesthesia** (numbness); **myalgia** (pain in muscles); **paresthesia** (tingling); *infection, upper respiratory tract* (cough; fever; runny or stuffy nose; sneezing; sore throat); *influenza-like syndrome* (bone pain; chills; muscle aches; shivering; sweating); *sinusitis* (headache); *anaphylaxis* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; puffiness or swelling around eyelids); *hypersensitivity reaction, immediate* (hives, itching, or redness of skin; shortness of breath; skin rash); *hypertension* (headache, severe).

Mafenide (Topical)

Commercial name(s): *Sulfamylon*.

Category: Antibacterial (topical); Antifungal (topical).

Conventional indications: Burn wound infections (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

FACE: *edema* (swelling or puffiness of face).

URINE: *crystalluria* (if systemic absorption occurs).

RESPIRATION: *hyperventilation* (deep or fast breathing with dizziness; numbness to feet, hands and around mouth); *tachypnea* (rapid shallow breathing; shortness of breath).

SKIN: **pain or burning feeling on treated area(s);** *allergic reaction* (itching, skin rash or redness, swelling of face or skin; wheezing or troubled breathing); *bleeding of skin; blisters; erythema* (flushing; redness of skin; unusually warm skin); *hives* (raised red swellings on the skin, lips, tongue, or in the throat); *maceration, skin* (softening of the skin); *oozing of skin; pruritus* (itching skin); *rash. uremia* (with prolonged use of high doses in patients with severe renal function impairment) [Acetaminophen-containing combinations];

GENERALITIES: **pain or burning feeling on treated area(s);** *allergic reaction* (itching, skin rash or redness, swelling of face or skin; wheezing or troubled breathing); *acidosis, metabolic* (drowsiness; nausea; rapid, deep breathing); *anemia, hemolytic, fatal* (accompanied by disseminated intravascular coagulation); *blood dyscrasias* (if systemic absorption occurs); *bone marrow depression* (chest pain; chills; cough or hoarseness; fever; lower back or side pain; painful or difficult urination; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *eosinophilia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *Lyell's syndrome* (if systemic absorption occurs); *porphyria* (darkening of urine; dark urine; fluid-filled skin blisters; itching of the skin; light-colored stools; sensitivity to the sun; skin thinness; yellow eyes or skin); *Stevens-Johnson syndrome* (if systemic absorption occurs); *swelling*.

DIAGNOSTIC TESTS: *acidosis, metabolic; anemia, hemolytic, fatal; blood dyscrasias; bone marrow depression; crystalluria; eosinophilia*.

Magnesium Sulfate (Systemic)

Commercial name(s): *Elliot's B Solution; Epsom Salts; Hair Salts; Kieserite* (as monohydrate); *Sal Amarum; Sal anglicum; Sal catharticum; Sal seidlitzense; Salts of England; Sel d'Angleterre; Sulfamag*.

Category: Anticonvulsant; Electrolyte replenisher; Tocolytic; Antiarrhythmic.

Conventional indications: Seizures, in toxemia of pregnancy (prophylaxis and treatment) [Intravenous magnesium sulfate]; Hypomagnesemia (prophylaxis and treatment); Premature labor (treatment); Tachycardia, ventricular, polymorphous (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *slurred speech.*

HEAD: *headache.*

VISION: *diplopia.*

MOUTH: *slurred speech.*

STOMACH: *nausea; vomiting.*

GENITALIA FEMALE: *inhibition, labor, slow down or halt the contractions of the uterus.*

RESPIRATION: *paralysis, respiratory; shortness of breath.*

CHEST: *arrest, cardiac; bradycardia; cardiac conduction, altered.*

EXTREMITIES: *reflexes, deep tendon, present, but possibly hypoactive, or loss of.*

SKIN: *flushing.*

GENERALITIES: *bradycardia; flushing; hypermagnesemia (deep tendon reflexes present, but possibly hypoactive; prolonged PQ interval; widened QRS interval on ECG; loss of deep tendon reflexes; respiratory paralysis; altered cardiac conduction; cardiac arrest; bradycardia; diplopia; flushing; headache; hypotension; nausea; shortness of breath; slurred speech; vomiting; weakness); weakness.*

DIAGNOSTIC TESTS: *hypermagnesemia; prolonged PQ interval; widened QRS interval on ECG.*

Magnesium Supplements (Systemic)

Commercial name(s): *Almora; Chloromag; Citro-Mag; Citroma; Concentrated Phillips' Milk of Magnesia; MGP; Mag 2; Mag-200; Mag-L-100; Mag-Ox 400; Mag-Tab SR; Maglucate; Magnesium-Rougier; Magonate; Magtrate; Maox; Phillips' Chewable Tablets; Phillips' Magnesia Tablets; Phillips' Milk of Magnesia; Slow-Mag; Uro-Mag.*

Category: Antihypomagnesemic [Magnesium Chloride; Magnesium Citrate; Magnesium Gluceptate; Magnesium Gluconate; Magnesium Hydroxide; Magnesium Lactate; Magnesium Oxide; Magnesium Pidolate; Magnesium Sulfate]; Electrolyte replenisher [Magnesium Chloride Injection; Magnesium Sulfate]; Nutritional supplement (mineral) [Magnesium Chloride; Magnesium Citrate; Magnesium Gluceptate; Magnesium Gluconate; Magnesium Hydroxide; Magnesium Lactate; Magnesium Oxide; Magnesium Pidolate; Magnesium Sulfate].

Conventional indications: Electrolyte depletion (treatment) [Parenteral magnesium chloride and magnesium sulfate]; Hypomagnesemia (prophylaxis and treatment); Antacid; Laxative; Seizures (treatment); Tachycardia, ventricular, atypical (treatment); Tetany, uterine (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *coma.*

RECTUM: *diarrhea* [oral magnesium].

KIDNEYS: *failure, renal (blurred or double vision; increased or decreased urination).*

RESPIRATION: *depression, respiratory* (troubled breathing) [parenteral magnesium]; *failure, respiratory* (troubled breathing).

CHEST: asystole; bradycardia (slow heartbeat).

EXTREMITIES: *paralysis, muscle* [parenteral magnesium].

SLEEP: drowsiness, severe.

SKIN: *flushing* [parenteral Magnesium].

GENERALITIES: *hypermagnesemia*; *flushing* [parenteral Magnesium]; *hypotension* (dizziness or fainting) [Parenteral Magnesium]; *irritation and pain at injection site* [intramuscular administration]; *paralysis, muscle* [Parenteral Magnesium]; CNS depression (severe drowsiness); coma.

DIAGNOSTIC TESTS: *hypermagnesemia*.

Malathion (Topical)

Commercial name(s): *Derbac-M; Ovide; Suleo-M*.

Category: Pediculicide.

Conventional indications: Pediculosis capitis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; clumsiness; confusion; depression, mental; restlessness*.

VERTIGO: *dizziness*.

HEAD: *irritation of scalp; stinging of scalp*.

EYE: *conjunctivitis, mild* (with accidental eye contact; redness, pain, swelling of eye, eyelid, or inner lining of eyelid burning; dry or itching eyes; discharge; excessive tearing); *pinpoint pupils; twitching, muscle, of eyelids; watering, increased*.

FACE: *twitching, muscle, of face*.

MOUTH: *watering, increased*.

EXTERNAL THROAT: *twitching, muscle, of neck*.

ABDOMEN: *bowel control, loss of; cramps, abdominal*.

RECTUM: *diarrhea*.

BLADDER: *bladder control, loss of*.

RESPIRATION: *distress, respiratory* (difficult or labored breathing; shortness of breath)

CHEST: *heartbeat, slow*.

EXTREMITIES: *clumsiness; unsteadiness*.

SLEEP: *drowsiness*.

PERSPIRATION: *sweating, increased*.

SKIN: *dermatitis, contact, allergic* (skin rash).

GENERALITIES: *heartbeat, slow; seizures; trembling; weakness, unusual*.

DIAGNOSTIC TESTS: *blood cholinesterase, little inhibition of* (daily application of 10% malathion dust to adult human skin for 3 weeks).

Mangafodipir (Systemic)

Commercial name(s): *Teslascan*.

Category: Diagnostic aid, paramagnetic (liver disorders).

Conventional indications: Liver imaging, magnetic resonance.

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

STOMACH: *nausea; vomiting; pain.*

ABDOMEN: *pain, abdominal.*

CHEST: *pain, chest; palpitations* (irregular heartbeat).

GENERALITIES: **injection site reaction, mild to moderate** (redness; warmth; coldness; feeling of pressure; pain); *allergic or anaphylactic reaction* (itching; shortness of breath; skin rash or hives; swelling of face); *palpitations* (irregular heartbeat).

Manganese Supplements (Systemic)

Other commonly used names: Manganese Chloride; Manganese Sulfate.

Commercial name(s): *Mangimin.*

Category: Nutritional supplement (mineral).

Conventional indications: Manganese deficiency (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

There have been no reports of toxicity or side effects from oral manganese supplements.

Mannitol (Systemic)

Commercial name(s): *Osmitol.*

Category: Diuretic; Antiglaucoma agent (systemic); Antihemolytic.

Conventional indications: Acute renal failure, oliguric phase (prophylaxis and treatment) [Intravenous Mannitol]; Edema, cerebral (treatment) or Intracranial pressure, elevated (treatment) [Intravenous Mannitol]; Intraocular pressure, elevated (treatment) [Intravenous Mannitol]; Toxicity, nonspecific (treatment) [Intravenous Mannitol]; Hemolysis (prophylaxis) [Irrigating solution].

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

EYE: *hypotension.*

VISION: *blurred vision.*

MOUTH: *dryness.*

STOMACH: *nausea; thirst, increased; vomiting.*

BLADDER: *urination, frequent; oliguria; urination, difficult.*

KIDNEYS: *failure, renal* (sudden decrease in amount of urine; swelling of face, feet, or lower legs; skin rash; unusual weight gain; shortness of breath; troubled breathing; wheezing; tightness in chest; increase in blood pressure; unusual thirst); *renal dynamic, alteration of, significant.*

CHEST: *cardiopulmonary dynamic, alteration of, significant; congestion, pulmonary (coughing; troubled breathing; wheezing); heartbeat, fast; pain, chest.*

EXTREMITIES: *swelling of feet or lower legs.*

CHILL: *chills.*

FEVER: *fever.*

SKIN: *hives; rash; necrosis (extravasation of Mannitol).*

GENERALITIES: *coagulation, increase of; thrombosis; circulatory overload (rapid administration); dehydration, tissue; edema (extravasation of mannitol); electrolyte and fluid imbalance (confusion; irregular heartbeat; muscle cramps or pain; numbness, tingling, pain, or weakness in hands or feet; seizures; trembling; unusual tiredness or weakness; weakness and heaviness of legs); heartbeat, fast; hemoconcentration, intensification of pre-existing; hyperkalemia, occasional (rapid administration); hyponatremia, dilutional (rapid administration); hypovolemia; thrombophlebitis (redness, swelling, or pain at injection site).*

DIAGNOSTIC TESTS: *alteration of cardiopulmonary and renal dynamics, significant; electrolyte and fluid imbalance; hyperkalemia, occasional (rapid administration); hyponatremia, dilutional (rapid administration).*

Maprotiline (Systemic)

Commercial name(s): *Ludiomil.*

Category: Antidepressant; Antineuralgic.

Conventional indications: Bipolar disorder, depressed type (treatment); Depressive disorder, major (treatment); Dysthymia (treatment); Anxiety associated with mental depression (treatment); Pain, neurogenic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *excitement, unusual; confusion; hallucinations; agitation; coma; restlessness.*

VERTIGO: *dizziness; lightheadedness.*

HEAD: *headache.*

VISION: *blurred vision.*

MOUTH: *dryness.*

STOMACH: *appetite, increased and weight gain (related to carbohydrate craving); heartburn; nausea; vomiting.*

RECTUM: *constipation, mild to severe (may lead to paralytic ileus); diarrhea.*

BLADDER: *difficulty in urinating.*

GENITALIA MALE: *impotence (decreased sexual ability); sexual drive, increased or decreased; swelling of testicles.*

GENITALIA FEMALE: *sexual drive, increased or decreased.*

RESPIRATION: *trouble in breathing.*

CHEST: *enlargement, breast (in males and females); heartbeat, fast or irregular; secretion of milk, inappropriate (in females).*

EXTREMITIES: *stiffness, muscle, severe; weakness, muscle, severe.*

SLEEP: *drowsiness; insomnia (trouble in sleeping).*

FEVER: fever.

PERSPIRATION: *sweating, increased.*

SKIN: itching; rash; redness; swelling; *sensitivity to sunlight, increased.*

GENERALITIES: tiredness; weakness; *seizures; shakiness; trembling; weight loss; agranulocytosis* (sore throat and fever); *anticholinergic effect* (difficulty in urinating); *heartbeat, fast or irregular; hypotension* (fainting); *jaundice, cholestatic* (yellow eyes or skin); coma; convulsions; stiffness, muscle, severe; weakness, muscle, severe.

DIAGNOSTIC TESTS: *agranulocytosis.*

Measles and Rubella Virus Vaccine Live (Systemic)

Commercial name(s): *M-R-VAX II.*

Category: Immunizing agent (active).

Conventional indications: Measles and rubella (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache, mild.*

EYE: *neuritis, optic* (pain or tenderness of eyes); *palsies, ocular* (double vision).

NOSE: *runny nose.*

THROAT: *soreness.*

EXTERNAL THROAT: lymphadenopathy or parotitis (swelling of glands in neck).

STOMACH: *nausea.*

EXTREMITIES: *arthralgia or arthritis* (aches or pain in joint); *neuropathy, peripheral* (pain, numbness, or tingling of hands, arms, legs, or feet); *polyneuritis or polyneuropathy* (pain, numbness, or tingling of hands, arms, legs, or feet).

FEVER: fever between 37.7 and 39.4°C (100 and 103°F); fever over 39.4°C (103°F).

SKIN: rash; *allergic reaction, delayed-type* (contact dermatitis); *purpura, thrombocytopenic* (bruising or purple spots on skin).

GENERALITIES: lymphadenopathy or parotitis (swelling of glands in neck); **reaction to acid pH of vaccine** (burning or stinging at injection site); *allergic reaction, delayed-type, cell-mediated* (itching, swelling, redness, tenderness, or hard lump at place of injection); *arthralgia or arthritis* (aches or pain in joint); *malaise* (vague feeling of bodily discomfort); *anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of feet and hands; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *encephalitis or meningoencephalitis* (confusion; headache, severe or continuing; irritability; stiff neck; vomiting); *Guillain-Barré syndrome; purpura, thrombocytopenic* (bruising or purple spots on skin).

Measles Virus Vaccine Live (Systemic)

Commercial name(s): *Attenuvax.*

Category: Immunizing agent (active).

Conventional indications: Measles (prophylaxis).

Primary Actions or Pathogenetic Symptoms

EYE: *palsies, ocular* (double vision).

EXTERNAL THROAT: *lymphadenopathy* (swelling of glands in neck).

FEVER: **fever of 37.7°C (100°F) or less; fever over 39.4°C (103°F);** *fever between 37.7 and 39.4°C (100 and 103°F).*

SKIN: *rash; purpura, thrombocytopenic* (bruising or purple spots on skin).

GENERALITIES: **burning at injection site; stinging at injection site;** *allergic reaction, delayed-type, cell-mediated* (itching, swelling, redness, tenderness, or hard lump at injection site); *anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of soles or palms; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *encephalitis or meningoencephalitis* (confusion, severe or continuing headache, irritability, stiff neck, or vomiting); *lymphadenopathy* (swelling of glands in neck); *purpura, thrombocytopenic* (bruising or purple spots on skin); *subacute sclerosing panencephalitis (SSPE)* (in children who do not have a history of natural measles infection but who have received measles vaccine); *swelling, blistering, or pain at injection site, severe and extensive.*

Measles, Mumps, and Rubella Virus Vaccine Live (Systemic)

Commercial name(s): *M-M-R II.*

Category: Immunizing agent (active).

Conventional indications: Measles, mumps, and rubella (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache, mild.*

EYE: *neuritis, optic* (pain or tenderness of eyes); *palsies, ocular* (double vision).

NOSE: *runny nose.*

THROAT: *soreness.*

EXTERNAL THROAT: **lymphadenopathy or parotitis** (swelling of glands in neck).

STOMACH: *nausea.*

GENITALIA MALE: *orchitis in postpubescent and adult men* (pain, tenderness, or swelling in testicles and scrotum).

EXTREMITIES: *arthralgia or arthritis* (aches or pain in joints); *neuropathy, peripheral* (pain, numbness, or tingling of hands, arms, legs, or feet); *polyneuritis or polyneuropathy* (pain, numbness, or tingling of hands, arms, legs, or feet).

FEVER: **fever between 37.7 and 39.4° C (100 and 103° F); fever higher than 39.4° C (103° F);** *fever, low-grade, lasting 1 to 2 days; fevers, high, prolonged.*

SKIN: **rash;** *erythema;* *allergic reactions, usually mild* (rash, pruritus, and purpura); *purpura, thrombocytopenic* (bruising or purple spots on skin).

GENERALITIES: **lymphadenopathy or parotitis** (swelling of glands in neck); **reaction to acid pH of vaccine** (burning or stinging at injection site); *allergic reaction, delayed-type, cell-mediated* (itching, swelling, redness, tenderness, or hard lump at injection site); *arthralgia or arthritis* (aches or pain in joints); *local reactions, extensive; malaise* (vague

feeling of bodily discomfort); *anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of soles or palms; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *encephalitis or meningoencephalitis* (confusion; headache, severe or continuing; irritability; stiff neck; or vomiting); *encephalopathy*; *Guillain-Barré syndrome (GBS)*; *hypersensitivity reactions* (urticaria or a wheal and flare at injection site); *purpura, thrombocytopenic* (bruising or purple spots on skin); *seizures* (convulsions); *subacute sclerosing panencephalitis (SSPE)* (in children who do not have a history of natural measles infection but who have received measles vaccine); *swelling, local; thrombocytopenia*.

DIAGNOSTIC TESTS: *thrombocytopenia*.

Mebendazole (Systemic)

Commercial name(s): *Vermox*.

Category: Anthelmintic (systemic).

Conventional indications: Ascariasis (treatment); Enterobiasis (treatment); Hookworm infection (treatment); Intestinal roundworm, multiple (treatment); Trichuriasis (treatment); Capillariasis (treatment); Gnathostomiasis (treatment); Hydatid disease, alveolar (treatment); Hydatid disease, unilocular (treatment); Trichinosis (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *alopecia* (hair loss); *headache*.

STOMACH: *nausea*; *vomiting*.

ABDOMEN: *pain, abdominal*; *upset, abdominal*.

RECTUM: *diarrhea*.

SKIN: *alopecia* (hair loss).

GENERALITIES: *alopecia* (hair loss); *hypersensitivity* (fever; skin rash or itching); *neutropenia* (sore throat and fever; unusual tiredness and weakness).

DIAGNOSTIC TESTS: *neutropenia*.

Mecamylamine (Systemic)

Commercial name(s): *Inversine*.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *mental changes* (confusion or excitement; mental depression).

VERTIGO: **hypotension, postural** (dizziness or lightheadedness, especially when getting up from a lying or sitting position).

EYE: **enlarged pupils**.

VISION: *blurred vision*.

MOUTH: dryness.

STOMACH: *appetite, loss of; nausea; vomiting.*

ABDOMEN: *ileus, paralytic* (bloating; frequent loose stools followed by severe constipation).

RECTUM: constipation (may rarely lead to paralytic ileus).

BLADDER: *urination, difficult.*

GENTALIA MALE: sexual ability or interest in sex, decreased.

GENTALIA FEMALE: sexual ability or interest in sex, decreased.

CHEST: *edema and fibrosis, interstitial pulmonary* (shortness of breath).

EXTREMITIES: *movements, choreiform* (uncontrolled movements of face, hands, arms, or legs).

SLEEP: drowsiness.

GENERALITIES: *hypotension; hypotension, postural* (dizziness or lightheadedness, especially when getting up from a lying or sitting position); **parasympathetic blockade** (blurred vision, less frequently or rarely; constipation; decreased sexual ability; dryness of mouth; enlarged pupils; weakness; difficult urination); **tiredness, unusual; weakness;** *central nervous system (CNS) stimulation, specifically choreiform movements* (uncontrolled movements of face, hands, arms, or legs); *convulsions; tremors* (trembling).

Mecasermin (Systemic)

Commercial name(s): *Increlex.*

Category: Insulin-like growth factor-1 replenisher.

Conventional indications: Growth failure (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache; *hypertension, intercranial (IH)* (headache; nausea and vomiting; blurred vision; change in ability to see colors, especially blue or yellow).

VISION: changes in vision.

EAR: fluid in middle ear; otitis media (earache; redness or swelling in ear); **pain, ear.**

HEARING: hypoacusis (loss of hearing).

THROAT: hypertrophy, tonsillar.

STOMACH: vomiting; thirst, increased.

ABDOMEN: *splenic length increased.*

BLADDER: frequent urination.

KIDNEY: *renal length increased.*

URINE: volume of pale, diluted urine, increased.

GENTALIA FEMALE: stop in menstruation.

RESPIRATION: snoring.

CHEST: hypertrophy, thymus; murmur, cardiac (chest pain; rapid heartbeat; breathlessness; fatigue; bluish skin color or fingertips).

BACK: backache.

EXTREMITIES: arthralgia (pain in joints; muscle pain or stiffness; difficulty in moving); **pain in extremity** (pain in arms or legs); *slipped capital femoral epiphysis* (limp;

pain in hip or knee); acromegaly (stop in menstruation; backache; changes in vision; excessive sweating; extreme weakness; frequent urination; headache; increase in hands and feet size; increased thirst; increased volume of pale, diluted urine; joint pain; pain in extremities); hands and feet size, increase in; pain, joint or in extremities.

PERSPIRATION: excessive sweating.

SKIN: **lipohypertrophy** (thickening of the skin).

GENERALITIES: **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **bruising** (large, flat, blue or purplish patches in the skin); **convulsions** (seizures); **hypoglycemia** (anxiety; blurred vision; chills; cold sweats; coma; confusion; cool pale skin; depression; dizziness; fast heartbeat; headache; increased hunger; nausea; nervousness; nightmares; seizures; shakiness; slurred speech; unusual tiredness or weakness); *allergic reactions*; acromegaly (stop in menstruation; backache; changes in vision; excessive sweating; extreme weakness; frequent urination; headache; increase in hands and feet size; increased thirst; increased volume of pale, diluted urine; joint pain; pain in extremities); pain, joint; weakness, extreme.

DIAGNOSTIC TESTS: **hypoglycemia**; **tympanometry**, **abnormal**; *renal and splenic lengths measured by ultrasound increased*.

Mechlorethamine (Systemic)

Commercial name(s): *Mustargen*.

Category: Antineoplastic.

Conventional indications: Lymphomas, Hodgkin's (treatment); Lymphomas, non-Hodgkin's (treatment); Malignant effusions, pericardial (treatment); Malignant effusions, peritoneal (treatment); Malignant effusions, pleural (treatment); Mycosis fungoides (treatment); Lymphomas, cutaneous T-cell (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *hair, loss of*.

EAR: *ototoxicity* (dizziness; ringing in the ears; loss of hearing).

MOUTH: *taste, metallic*.

STOMACH: **nausea**; **vomiting**; *appetite, loss of*; *ulcer, peptic* (black, tarry stools).

ABDOMEN: *hepatotoxicity* (yellow eyes or skin); *ulcer, peptic* (black, tarry stools).

RECTUM: *diarrhea*.

KIDNEYS: *nephropathy, uric acid* (joint pain; lower back or side pain; swelling of feet or lower legs).

GENITALIA FEMALE: **suppression**, **gonadal** (missing menstrual periods).

EXTREMITIES: *neuropathy, peripheral* (numbness, tingling, or burning of fingers, toes, or face).

SKIN: **idiosyncratic reaction** (painful rash); **herpes zoster**, **precipitation of** (painful rash); *hair, loss of*.

GENERALITIES: **herpes zoster**, **precipitation of** (painful rash); **immunosuppression** (fever or chills, cough or hoarseness, lower back or side pain, painful or difficult urination); **infection** (fever or chills, cough or hoarseness, lower back or side pain, painful or difficult

urination); **leukopenia** (fever or chills, cough or hoarseness, lower back or side pain, painful or difficult urination); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); extravasation (pain or redness at the site of injection); hair, loss of; hyperuricemia (joint pain; lower back or side pain; swelling of feet or lower legs); neurotoxicity (confusion; drowsiness; headache); thrombosis or thrombophlebitis (pain or redness at the site of injection); weakness; allergic reaction (shortness of breath, itching, wheezing); bone marrow depression (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); neuropathy, peripheral (numbness, tingling, or burning of fingers, toes, or face); pain after intracavitary administration.

DIAGNOSTIC TESTS: **leukopenia**; **thrombocytopenia**; hyperuricemia.

Mechlorethamine (Topical)

Commercial name(s): *Caryolysin; Caryolysine; Cloramin; Dichloren; Embichin; Mustargen; Mutagen.*

Category: Antineoplastic, topical.

Conventional indications: Mycosis fungoides (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: **allergy, contact** (skin rash or itching; sore, reddened skin); **darkening of skin**; **dryness**.

GENERALITIES: *allergic reaction, immediate* (hives; sudden shortness of breath).

Meclizine (Systemic)

Commercial name(s): *Antivert; Antivert/25; Antivert/50; Bonamine; Bonine; Dramamine II; Meclicot; Medivert.*

Category: Antiemetic; Antivertigo agent.

Conventional indications: Motion sickness (prophylaxis and treatment); Vertigo (prophylaxis and treatment); Nausea and vomiting, radiotherapy-induced (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

MIND: coma; hallucinations.

VISION: blurred vision.

NOSE: dryness.

MOUTH: dryness.

THROAT: dryness.

RECTUM: constipation.

SLEEP: **drowsiness**; insomnia (trouble in sleeping).

GENERALITIES: anticholinergic effects (including blurred vision, constipation, or dryness of mouth, nose, or throat); CNS depression (including drowsiness and coma); CNS

stimulation (including hallucinations, insomnia [trouble in sleeping], and seizures); coma; hypotension; seizures.

Medroxyprogesterone and Estradiol (Systemic)

Commercial name(s): Lunelle.

Category: Contraceptive, systemic.

Conventional indications: Pregnancy, prevention of.

Primary Actions or Pathogenetic Symptoms

MIND: **depression; emotional lability** (crying; depersonalization; dysphoria; euphoria; mental depression; paranoia; quick to react or overreact emotionally; rapidly changing moods); **nervousness**.

VERTIGO: **dizziness**.

HEAD: **alopecia** (hair loss; thinning of hair); **headache**; *hemorrhage, cerebral, increased risk of*.

EYE: **corneal curvature changes**.

FACE: **edema** (bloating or swelling of face).

STOMACH: **nausea**; vomiting.

ABDOMEN: **enlarged abdomen; pain, abdominal**; *adenomas, hepatic, increased risk of; gallbladder disease, increased risk of; tumors, liver, benign, increased risk of*.

GENITALIA FEMALE: **contraceptive** (inhibition of the ovulation); **amenorrhea** (stopping of menstrual bleeding over several months); **dysmenorrhea**; **libido, decreased**; **menorrhagia** (increased amount of menstrual bleeding occurring at regular monthly periods); **moniliasis, vaginal** (vaginal yeast infection); **vulvovaginal disorder**; bleeding, vaginal; menstrual irregularities.

CHEST: **lactation, decrease in, when given immediately postpartum**; **tenderness/pain, breast**; *embolism, pulmonary, increased risk of; infarction, myocardial, increased risk of*.

EXTREMITIES: **edema** (bloating or swelling of hands, lower legs, and/or feet).

SKIN: **acne**; **alopecia** (hair loss; thinning of hair); **melasma** (brown, blotchy spots on exposed skin); **rash, allergic**.

GENERALITIES: **alopecia** (hair loss; thinning of hair); **anaphylactic reactions** (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); **asthenia** (lack or loss of strength); **carbohydrate tolerance, reduced**; **edema** (decreased urination; rapid weight gain; bloating or swelling of face, hands, lower legs, and/or feet); **jaundice, cholestatic** (loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); **weight change**; *hypertension, increased risk of; infarction, myocardial, increased risk of; thromboembolism, arterial, increased risk of; thrombophlebitis, increased risk of; thrombosis, increased risk of; tumors, liver, benign, increased risk of*.

Mefloquine (Systemic)

Commercial name(s): *Lariam*.

Category: Antimalarial.

Conventional indications: Malaria (prophylaxis); Malaria (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **emotional problems;** *aggression; agitation; anxiety; confusion; depression; forgetfulness; hallucinations; panic attacks; psychotic manifestations* (mood or mental changes, mental depression, and/or restlessness); *restlessness; suicidal ideation; suicide*.

VERTIGO: **dizziness; balance, loss of;** *syncope* (fainting).

HEAD: **headache;** *alopecia* (loss of hair).

VISION: *visual disturbance* (blurred or loss of vision; disturbed color perception; night blindness; double vision; tunnel vision; halos around lights; overbright appearance of lights).

HEARING: **tinnitus** (continuing ringing or buzzing or other unexplained noise in ears, hearing loss); *impairment, hearing*.

STOMACH: **nausea; pain, abdominal** (stomach pain); **vomiting;** *anorexia* (loss of appetite); *dyspepsia* (acid or sour stomach, belching, heartburn, indigestion, stomach discomfort, upset, or pain).

ABDOMEN: **pain, abdominal** (stomach pain).

RECTUM: **diarrhea.**

RESPIRATION: *dyspnea* (shortness of breath, difficult or labored breathing, tightness in chest, wheezing).

CHEST: *arrhythmia* (irregular heartbeat); *block, atrioventricular [AV]* (chest pain, dizziness, fainting, pounding, slow heartbeat, troubled breathing, unusual tiredness or weakness); *bradycardia* (chest pain or discomfort, lightheadedness, dizziness or fainting, shortness of breath, slow or irregular heartbeat, unusual tiredness); *extrasystoles* (extra heartbeats); *pain, chest; palpitation* (fast, irregular, pounding, or racing heartbeat or pulse); *tachycardia* (fast, pounding, or irregular heartbeat or pulse).

EXTREMITIES: **arthralgia** (aches and pain in joints); **myalgia** (aches and pain in muscles); *cramps, muscle; weakness, muscle*.

SLEEP: *insomnia* (trouble in sleeping).

DREAMS: *abnormal dreams*.

CHILL: **chills.**

FEVER: **fever.**

PERSPIRATION: *sweating*.

SKIN: *alopecia* (loss of hair); *erythema* (flushing, redness of skin, unusually warm skin); *erythema multiforme* (aching joints and muscles; blistering, loosening, peeling, or redness of skin; chills, fever, and/or sore throat; red or irritated eye; sores, ulcers, and/or white spots in mouth or on lips; unusual tiredness or weakness); *exanthema* (skin rash with a general disease); *pruritis* (itching skin); *rash; urticaria* (hives or welts, itching, redness of skin, skin rash).

GENERALITIES: **arthralgia** (aches and pain in joints); **myalgia** (aches and pain in muscles); *asthenia* (unusual tiredness or weakness); *alopecia* (loss of hair); *arrhythmia*

(irregular heartbeat); *block, atrioventricular [AV]* (chest pain, dizziness, fainting, pounding, slow heartbeat, troubled breathing, unusual tiredness or weakness); *bradycardia* (chest pain or discomfort, lightheadedness, dizziness or fainting, shortness of breath, slow or irregular heartbeat, unusual tiredness); *cramps, muscle*; *edema* (swelling); *encephalopathy* (confusion; headache, severe or continuing; irritability; stiff neck; vomiting); *erythema multiforme* (aching joints and muscles; blistering, loosening, peeling, or redness of skin; chills, fever, and/or sore throat; red or irritated eye; sores, ulcers, and/or white spots in mouth or on lips; unusual tiredness or weakness); *fatigue* (unusual tiredness or weakness); *hypertension* (dizziness, severe or continued headache); *hypotension* (unusual tiredness or weakness, severe); *malaise* (general feeling of discomfort or illness, unusual tiredness or weakness); *neuropathies, sensory and motor* (including paresthesia, tremor, and ataxia); *palpitation* (fast, irregular, pounding, or racing heartbeat or pulse); *seizures* (convulsions, muscle spasm or jerking of all extremities, sudden loss of consciousness, loss of bladder control); *Stevens-Johnson syndrome* (aching joints and muscles; blistering, loosening, peeling, or redness of skin; chills, fever, and/or sore throat; red or irritated eye; sores, ulcers, and/or white spots in mouth or on lips; unusual tiredness or weakness); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); *weakness, muscle*.

DIAGNOSTIC TESTS: *block, atrioventricular [AV]*.

Meglumine Antimoniate (Systemic)

Commercial name(s): *Glucantim; Glucantime*.

Category: Antiprotozoal (systemic).

Conventional indications: Leishmaniasis, visceral (treatment); Leishmaniasis, cutaneous (treatment); Leishmaniasis, mucosal (treatment); Leishmaniasis, diffuse cutaneous (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *lethargy* (drowsiness).

HEAD: *headache*.

FACE: *edema* (swelling of the face).

STOMACH: *anorexia* (loss of appetite); *nausea*; *pain*; *vomiting*.

ABDOMEN: *hepatotoxicity* (increased level of hepatic enzymes); *pain*; *pancreatitis* (fever; nausea; pain in the upper abdominal area extending to the back; vomiting).

KIDNEYS: *nephrotoxicity* (decreased amount and frequency of urination).

RESPIRATION: *dyspnea* (difficulty in breathing).

COUGH: *spasmodic cough*.

CHEST: *cardiotoxicity* (irregular heartbeat).

EXTREMITIES: *arthralgia* (joint pain); *myalgia* (muscle pain).

CHILL: *chills*.

FEVER: *fever*.

GENERALITIES: *arthralgia* (joint pain); *malaise* (general feeling of discomfort); *myalgia* (muscle pain); *anaphylactoid reaction* (changes in facial skin color; fainting or loss of consciousness; fast or irregular breathing; husky voice; puffiness or swelling of the

eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; skin rash and/or itching); *anemia* (troubled breathing, exertional; unusual tiredness or weakness); *leukopenia* (fever or chills; cough or hoarseness).

DIAGNOSTIC TESTS: **hepatotoxicity** (increased level of hepatic enzymes); *anemia*; *leukopenia*.

Meloxicam (Systemic)

Commercial name(s): *Mobic*; *Mobicox*.

Category: Antirheumatic (nonsteroidal anti-inflammatory).

Conventional indications: Arthritis, juvenile rheumatoid (treatment); Arthritis, rheumatoid (treatment); Osteoarthritis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety*; *confusion*; *depression* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); *nervousness*; *slurred speech*, *sudden onset of*; lethargy (extreme tiredness or weakness).

VERTIGO: *syncope* (fainting); *vertigo* (dizziness or lightheadedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: *alopecia* (hair loss; thinning of hair); *headaches of sudden onset*, *severe*.

EYE: *angioedema* (large, hive-like swelling on eyelids); *conjunctivitis* (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing).

VISION: *abnormal vision* (changes in vision).

HEARING: *tinnitus* (continuing ringing or buzzing or other unexplained noise in ears; hearing loss).

FACE: *angioedema* (large, hive-like swelling on face, lips); *edema* (swelling or puffiness of face).

MOUTH: *angioedema* (large, hive-like swelling on tongue); *dryness*; *stomatitis ulcerative* (canker sores; sores, ulcers, or white spots on lips or tongue or inside the mouth); *taste perversion* (change in taste; bad unusual or unpleasant [after] taste); *slurred speech*, *sudden onset of*.

THROAT: *angioedema* (large, hive-like swelling on throat); *esophagitis* (difficulty in swallowing; pain or burning in throat; chest pain; heartburn; vomiting; sores, ulcers, or white spots on lips or tongue or inside the mouth); pain, epigastric (pain in chest, upper stomach, or throat; heartburn).

STOMACH: *dyspepsia* (heartburn; indigestion); *appetite increased*; *eructation* (belching; bloated full feeling; excess air or gas in stomach); *reflux*, *gastroesophageal* (heartburn, vomiting); *gastritis* (burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion); *hematemesis* (vomiting of blood or material that looks like coffee grounds); *nausea*; *ulcer, gastric* (loss of appetite; nausea; stomach bloating, burning, cramping, or pain; vomiting; weight loss); *ulcer, gastric, hemorrhagic* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); *ulcer, gastric*,

perforated (severe abdominal pain; cramping; burning; bloody, black, or tarry stools, trouble breathing; vomiting of material that looks like coffee grounds; severe and continuing nausea; heartburn and/or indigestion); vomiting; bleeding or hemorrhage, gastrointestinal (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe stomach pain); ulceration, gastrointestinal (abdominal or stomach pain, cramping, or burning; black, tarry stools; constipation; diarrhea; vomiting of blood or material that looks like coffee grounds; nausea; heartburn; indigestion); pain, epigastric (pain in chest, upper stomach, or throat; heartburn).

ABDOMEN: flatulence (gas); bilirubinemia (yellow eyes or skin); colitis (stomach cramps, tenderness, pain; watery or bloody diarrhea; fever); pain, abdominal; pancreatitis (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); perforation, intestinal (severe abdominal pain; cramping; burning; bloody, black, or tarry stools; trouble breathing; vomiting of material that looks like coffee grounds; severe and continuing nausea, heartburn and/or indigestion); ulcer, duodenal (burning upper abdominal pain; loss of appetite; nausea; vomiting); ulcer, duodenal, hemorrhagic (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); ulcer, duodenal, perforated (severe abdominal pain; cramping; burning; bloody, black, or tarry stools, trouble breathing; vomiting of material that looks like coffee grounds; severe and continuing nausea; heartburn and/or indigestion); bleeding or hemorrhage, gastrointestinal (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe stomach pain); failure, liver (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin); pain, groin; ulceration, gastrointestinal (abdominal or stomach pain, cramping, or burning; black, tarry stools; constipation; diarrhea; vomiting of blood or material that looks like coffee grounds; nausea; heartburn; indigestion); dysfunction, hepatic (dark urine; unusual tiredness; yellow eyes or skin; fever with or without chills; stomach pain).

RECTUM: diarrhea; constipation; melena (bloody, black, or tarry stools); bleeding or hemorrhage, gastrointestinal (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe stomach pain).

STOOL: melena (bloody, black, or tarry stools).

KIDNEYS: failure, renal (lower back/side pain; decreased frequency/amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure); nephritis, interstitial (bloody or cloudy urine; fever; skin rash; swelling of feet or lower legs; greatly decreased frequency of urination or amount of urine).

URINE: albuminuria (cloudy urine); hematuria (blood in urine).

GENITALIA MALE: angioedema (large, hive-like swelling on sex organs).

GENITALIA FEMALE: angioedema (large, hive-like swelling on sex organs).

RESPIRATION: asthma (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); bronchospasm (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); dyspnea (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); shortness of breath, sudden onset of, for

no apparent reason; depression, respiratory (blue lips, fingernails, or skin; difficult or troubled breathing; irregular, fast or slow, or shallow breathing).

CHEST: asthma (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); bronchospasm (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); failure, cardiac (chest pain or discomfort; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; weight gain; wheezing); palpitation (fast, irregular, pounding, or racing heartbeat or pulse); tachycardia (fast, pounding, or irregular heartbeat or pulse); *pain, chest*; arrest, cardiac (chest pain).

EXTREMITIES: angioedema (large, hive-like swelling on hands, legs, feet); tremor (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet); *coordination, sudden loss of*; *pain in legs, specially calves*.

SLEEP: somnolence (sleepiness); drowsiness.

DREAMS: abnormal dreaming.

FEVER: *fever*.

PERSPIRATION: sweating increased.

SKIN: alopecia (hair loss; thinning of hair); eruption, bullous (skin blisters); hot flushes; photosensitivity reaction (increased sensitivity of skin to sunlight; itching; redness or other discoloration of skin; severe sunburn; skin rash); pruritus (itching skin); purpura (pinpoint red or purple spots on skin); urticaria (hives or welts; itching; redness of skin; skin rash); *dermatitis, exfoliative* (cracks in the skin; loss of heat from the body; red, swollen skin, scaly skin); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *necrosis, epidermal, toxic* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

GENERALITIES: allergic reaction (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); alopecia (hair loss; thinning of hair); bilirubinemia (yellow eyes or skin); convulsions (seizures); dehydration (confusion; decreased urination; dizziness; dry mouth; fainting; increase in heart rate; lightheadedness; rapid breathing; sunken eyes; thirst; unusual tiredness or weakness; wrinkled skin); fatigue (unusual tiredness or weakness); hepatitis (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); hypertension (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); hypotension (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness) (rebound effect?); leukopenia (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); malaise (general feeling of discomfort or illness; unusual tiredness or weakness); palpitation (fast, irregular, pounding, or racing heartbeat or pulse); paresthesia (burning, crawling, itching, numbness, prickling, “pins and needles” , or tingling feelings); tachycardia (fast, pounding,

or irregular heartbeat or pulse); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *vasculitis* (redness, soreness or itching skin; fever; sores, welting or blisters); *weight decrease or increase*; *agranulocytosis* (cough or hoarseness; fever with or without chills; general feeling of tiredness or weakness; lower back or side pain; painful or difficult urination; sore throat; sores, ulcers, or white spots on lips or in mouth; unusual bleeding or bruising); *anaphylactoid reaction* (difficulty swallowing; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; tightness in chest; wheezing); *anemia* (unusual tiredness or weakness); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *jaundice* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *shock* (cold clammy skin; confusion; dizziness; lightheadedness; fast, weak pulse; sweating; wheezing); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *albuminuria*; *bilirubinemia*; *hematuria*; *leukopenia*; *thrombocytopenia*; *agranulocytosis*; *anemia*.

Secondary Actions or Rebound Effects: *angina pectoris* (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea); *arrhythmia* (dizziness; fainting; fast, slow, or irregular heartbeat); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); *stroke* (confusion; difficulty in speaking; slow speech; inability to speak; inability to move arms, legs, or facial muscles; double vision; headache); *cardiovascular thrombotic events* (severe headaches of sudden onset; sudden loss of coordination; pains in chest, groin, or legs, especially calves of legs; sudden onset of shortness of breath for no apparent reason; sudden onset of slurred speech; sudden vision changes; stroke; serious potential life-threatening gastrointestinal (GI) bleeding).

Melphalan (Systemic)

Commercial name(s): *Alkeran*.

Category: Antineoplastic.

Conventional indications: Carcinoma, ovarian, epithelial (treatment); Carcinoma, breast (treatment); Melanoma, malignant (treatment); Multiple myeloma (treatment); Waldenström's macroglobulinemia (treatment); Lymphomas, Hodgkin's (treatment); Leukemia, chronic myelocytic (treatment); Carcinoma, endometrial (treatment).

Primary Actions or Pathogenetic Symptoms

MOUTH: *stomatitis* (sores in mouth and on lips).

STOMACH: *nausea; vomiting*.

ABDOMEN: *colitis* (abdominal cramping and pain).

KIDNEYS: *nephropathy, uric acid* (joint pain; lower back or side pain; swelling of feet or lower legs).

CHEST: *fibrosis, pulmonary* (shortness of breath).

SKIN: *skin or soft tissue injury* (redness and/or soreness in arm or leg) (with isolated limb perfusion).

GENERALITIES: **neutropenia, with or without infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *hypersensitivity reactions, including anaphylaxis* (fast or irregular heartbeat; shortness of breath; sudden skin rash or itching; troubled breathing); *hyperuricemia* (joint pain; lower back or side pain; swelling of feet or lower legs); *mucositis* (diarrhea; difficulty in swallowing); *vasculitis, severe, recurrent* (redness and/or soreness at the infusion site); *bone marrow depression* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); *myelosuppression*; anemia (unusual bleeding or bruising; unusual tiredness or weakness).

DIAGNOSTIC TESTS: **neutropenia, with or without infection; thrombocytopenia; hyperuricemia; bone marrow depression; anemia.**

Memantine (Systemic)

Commercial name(s): *Ebixa; Namenda*.

Category: Dementia symptoms treatment adjunct.

Conventional indications: Dementia, Alzheimer's type, moderate to severe (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **confusion** (rebound effect?); *agitation* (anxiety; nervousness; restlessness; irritability; dry mouth; shortness of breath; hyperventilation; trouble sleeping; irregular heartbeats; shaking) (rebound effect?); *anxiety* (fear; nervousness); *depression* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); *hallucination* (seeing, hearing, or feeling things that are not there); *restlessness*; consciousness, loss of; psychosis; stupor.

VERTIGO: **dizziness**; *gait, abnormal* (change in walking and balance; clumsiness or unsteadiness).

HEAD: **headache; hemorrhage, intracranial** (confusion; headache; sudden severe weakness; nausea and vomiting); *infarction, cerebral* (blurred vision; confusion, numbness or tingling in face, arms, legs; severe headache; trouble speaking or walking).

EAR: *otitis media*.

FACE: *edema, peripheral* (bloating or swelling of face).

THROAT: *dysphagia* (difficulty swallowing).

STOMACH: anorexia (loss of appetite; weight loss); nausea; vomiting; gastritis (burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion); reflux, gastroesophageal (heartburn; vomiting).

ABDOMEN: colitis (stomach cramps; tenderness; pain; watery or bloody diarrhea; fever); failure, hepatic (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin); ileus (abdominal pain; severe constipation; severe vomiting); pancreatitis, acute (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: constipation (difficulty having a bowel movement (stool)); diarrhea.

BLADDER: incontinence, urinary (loss of bladder control); infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); failure, renal, acute (agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness).

GENITALIA MALE: impotence (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection).

RESPIRATION: bronchitis (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); dyspnea (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); infection, upper respiratory tract (cough; sore throat); pneumonia, aspiration (infection from breathing foreign substance into the lungs).

COUGH: coughing.

CHEST: bronchitis (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); block, atrioventricular (chest pain; dizziness; fainting, pounding, slow heartbeat; troubled breathing; unusual tiredness or weakness); pain, chest; pneumonia, aspiration (infection from breathing foreign substance into the lungs); tachycardia (fast, pounding, or irregular heartbeat or pulse); tachycardia, supraventricular (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations).

BACK: pain, back.

EXTREMITIES: arthralgia (pain in joints; muscle pain or stiffness; difficulty in moving); edema, peripheral (bloating or swelling of arms, hands, lower legs, or feet; tingling of hands or feet); carpal tunnel syndrome (burning, numbness, pain, or tingling in all fingers except smallest finger); claudication (pain, tension, and weakness upon walking that subsides during periods of rest); fracture, bone (pain or swelling in arms or legs without any injury).

SLEEP: insomnia; somnolence (sleepiness or unusual drowsiness).

SKIN: acne.

GENERALITIES: arthralgia (pain in joints; muscle pain or stiffness; difficulty in moving); edema, peripheral (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); fatigue (unusual tiredness or weakness); hypertension (blurred vision; dizziness; nervousness; headache;

pounding in the ears; slow or fast heartbeat); *infection, upper respiratory tract* (cough; sore throat); *influenza-like syndrome* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains); *pain, block, atrioventricular* (chest pain; dizziness; fainting, pounding, slow heartbeat; troubled breathing; unusual tiredness or weakness); *convulsions, grand mal* (total body jerking; loss of bladder control; loss of consciousness); *death, sudden* (no pulse; no blood pressure; no breathing); *dyskinesia* (twitching, twisting, uncontrolled repetitive movements of tongue, lips, face, arms, or legs); *fracture, bone* (pain or swelling in arms or legs without any injury); *hyperlipidemia* (large amount of fat in the blood); *hypoglycemia* (anxiety; blurred vision; chills; cold sweats; coma; confusion; cool pale skin; depression; dizziness; fast heartbeat; headache; increased hunger; nausea; nervousness; nightmares; seizures; shakiness; slurred speech; unusual tiredness or weakness); *malaise* (general feeling of discomfort or illness; unusual tiredness or weakness); *neuroleptic malignant syndrome* (convulsions; difficulty in breathing; fast heartbeat; high fever; high or low blood pressure; increased sweating; loss of bladder control; severe muscle stiffness; unusually pale skin; tiredness); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); *tachycardia, supraventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: *block, atrioventricular; hyperlipidemia; hypoglycemia; prolonged QT interval; tachycardia, supraventricular; thrombocytopenia.*

Secondary Actions or Rebound Effects: *tardive dyskinesia* (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs).

Meningococcal Polysaccharide Vaccine (Systemic)

Commercial name(s): *Menomune.*

Category: Immunizing agent (active).

Conventional indications: Meningitis, meningococcal (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache.*

CHILL: *chills.*

FEVER: *fever over 37.8°C (100°F)*

GENERALITIES: *erythema at injection site* (redness); *tenderness, soreness, or pain at injection site*; *fatigue* (tiredness or weakness); *induration at injection site* (hard lump); *malaise* (general feeling of discomfort or illness); *anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of soles or palms; reddening of skin,

especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe).

Meningococcal Vaccine, Diphtheria Conjugate (Systemic)

Category: Immunizing agent (active).

Conventional indications: Meningitis, meningococcal (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

STOMACH: anorexia (loss of appetite; weight loss); vomiting.

RECTUM: diarrhea.

BACK: *myelitis, transverse* (back pain, sudden and severe; muscle weakness, sudden and progressing).

EXTREMITIES: arthralgia (pain in joints; muscle pain or stiffness; difficulty in moving).

CHILL: chills.

FEVER: fever.

SKIN: rash.

GENERALITIES: arthralgia (pain in joints; muscle pain or stiffness; difficulty in moving); fatigue (unusual tiredness or weakness); **induration at injection site** (hard lump at injection site); **malaise** (general feeling of discomfort or illness; unusual tiredness or weakness); **pain, redness, or swelling at injection site**; *anaphylactic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *Guillain-Barre syndrome* (sudden numbness and weakness in the arms and legs; inability to move arms and legs).

Menotropins (Systemic)

Commercial name(s): Humegon; Menopur; Pergonal.

Category: Gonadotropin; Infertility therapy adjunct.

Conventional indications: Reproductive technologies, assisted; Infertility, female (treatment); Infertility, male (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness (in females).

HEAD: headache (in females); migraine headache (in females) (headache, severe and throbbing).

FACE: flushing (in females) (feeling of warmth redness of the face).

EXTERNAL THROAT: flushing (in females) (feeling of warmth redness of the neck).

STOMACH: nausea, mild (in females); vomiting, mild (in females).

RECTUM: constipation (in females) (difficulty having a bowel movement [stool]); diarrhea, mild (in females).

GENITALIA MALE: *fertility adjunct.*

GENITALIA FEMALE: *fertility adjunct*; **ovarian cysts, uncomplicated, mild to moderate** (mild bloating, abdominal or pelvic pain); **enlargement, ovarian, uncomplicated, mild to moderate** (mild bloating, abdominal or pelvic pain); *menstrual disorder* (menstrual changes); *ovarian hyperstimulation syndrome, severe* (severe abdominal or stomach pain; feeling of indigestion; moderate to severe bloating; marked increase in vascular permeability; decreased amount of urine; continuing or severe nausea, vomiting, or diarrhea; severe pelvic pain; rapid weight gain; swelling of lower legs; shortness of breath); *spasm, uterine* (severe cramping of the uterus).

RESPIRATION: **respiratory disorder** (coughing; sneezing; sore throat; stuffy or runny nose) (in females); *respiratory distress syndrome, acute.*

COUGH: *cough, increased* (in females).

CHEST: *flushing* (in females) (feeling of warmth redness of the upper chest); *gynecomastia* (in males) (enlargement of breasts); *tenderness, breast* (in females); *atelectasis.*

BACK: *pain, back* (in females).

EXTREMITIES: *flushing* (in females) (feeling of warmth redness of the arms).

SKIN: **rash** (in females); *flushing* (in females) (feeling of warmth redness of the face, neck, arms and occasionally, upper chest).

GENERALITIES: *fertility adjunct*; **pain, swelling, or irritation at injection site** (in females); **rash at injection site** (in females); *flu syndrome* (in females) (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *hot flash* (in females) (feeling of warmth redness of the face, neck, arms and occasionally, upper chest); *malaise* (in females) (general feeling of discomfort or illness; unusual tiredness or weakness); *pain* (in females); *erythrocytosis* (in males) (shortness of breath; irregular heartbeat; dizziness; loss of appetite; headache; fainting; more frequent nosebleeds); *respiratory distress syndrome, acute*; *thromboembolism, arterial* (resulting in venous thrombophlebitis, pulmonary embolism, pulmonary infarction, stroke, arterial occlusion necessitating limb amputation, and (rarely) death).

Meprobamate (Systemic)

Commercial name(s): *Apo-Meprobamate; Equanil; Meprospan 200; Meprospan 400; Meprospan-400; Miltown; Miltown-200; Miltown-400; Miltown-600; Probate; Trancot.*

Category: Antianxiety agent.

Conventional indications: Anxiety (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **clumsiness**; *confusion*; *hallucinations*; speech, slurred.

VERTIGO: *dizziness*; *lightheadedness*; staggering.

HEAD: *headache.*

VISION: *blurred vision*; *change in near or distant vision.*

MOUTH: speech, slurred.

STOMACH: nausea; vomiting.

RECTUM: diarrhea.

RESPIRATION: shortness of breath; slow or troubled breathing.

CHEST: *heartbeat, fast, pounding, or irregular*; heartbeat, slow.

EXTREMITIES: **clumsiness**; **unsteadiness**; *trembling*; *twitching, muscle*.

SLEEP: **drowsiness**.

DREAMS: *dreaming, increased*; *nightmares*.

GENERALITIES: allergic reaction (skin rash, hives, or itching; wheezing, shortness of breath, or troubled breathing [rare]); false sense of well-being; tiredness or weakness, unusual; *convulsions*; *heartbeat, fast, pounding, or irregular*; *leukopenia* (sore throat and fever); *thrombocytopenia* (unusual bleeding or bruising); *trembling*; *twitching, muscle*.

DIAGNOSTIC TESTS: *leukopenia*; *thrombocytopenia*.

Secondary Actions or Rebound Effects: *insomnia* (trouble in sleeping); *nervousness*; *paradoxical reaction* (unusual excitement); *restlessness*.

Meprobamate and Aspirin (Systemic)

Commercial name(s): *Epromate-M*; *Equagesic*; *Heptogesic*; *Meprogesic*; *Meprogesic Q*; *Micrainin*.

Category: Analgesic.

Conventional indications: Pain, with anxiety and tension (treatment); Headache, tension (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion* [Meprobamate]; *clumsiness*; *hallucinations*; behavior, changes in (in children) [Aspirin]; confusion, severe [Aspirin]; excitement [Aspirin]; hallucinations [Aspirin]; nervousness [Aspirin]; speech, slurred [Meprobamate].

VERTIGO: dizziness; lightheadedness; staggering [Meprobamate].

HEAD: *headache* (rebound effect?).

VISION: blurred vision; change in near or distant vision; vision problems [Aspirin].

HEARING: hearing, loss of; ringing or buzzing in ears, continuing [Aspirin].

MOUTH: speech, slurred [Meprobamate].

STOMACH: **irritation, gastrointestinal** (mild stomach pain; heartburn or indigestion; nausea with or without vomiting); *bleeding or ulceration, gastrointestinal, aspirin-induced* (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds); *nausea*; *vomiting*; pain, severe and continuing [Aspirin]; thirst, unusual [Aspirin].

ABDOMEN: **irritation, gastrointestinal** (mild stomach pain; heartburn or indigestion; nausea with or without vomiting); *bleeding or ulceration, gastrointestinal, aspirin-induced* (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds).

RECTUM: *bleeding, gastrointestinal, aspirin-induced* (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds); diarrhea, severe or continuing [Aspirin].

URINE: bloody urine [Aspirin]; ketonuria [Aspirin]; proteinuria [Aspirin].

RESPIRATION: *bronchospasm, aspirin-induced; bronchospastic allergic reaction* (wheezing; shortness of breath; troubled breathing; tightness in chest); fast or deep breathing [Aspirin]; shortness of breath [Meprobamate]; slow breathing [Meprobamate]; troubled breathing [Meprobamate, Aspirin].

CHEST: *bronchospastic allergic reaction* (wheezing; shortness of breath; troubled breathing; tightness in chest); heartbeat, slow [Meprobamate].

EXTREMITIES: *clumsiness; trembling; twitching, muscle; unsteadiness*; flapping movements of the hands, unusual or uncontrolled, especially in elderly patients [Aspirin].

SLEEP: *drowsiness.*

DREAMS: *dreaming, increased; nightmares.*

FEVER: fever, unexplained [Aspirin].

PERSPIRATION: increased sweating [Aspirin].

SKIN: *allergic reaction* (skin rash, hives, or itching); *urticaria* [Aspirin].

GENERALITIES: *analgesic* (pain absence); *anaphylactoid reactions*; *anemia, hemolytic, Aspirin-induced* (troubled breathing, exertional; unusual tiredness or weakness) (almost always reported in patients with glucose-6-phosphate (G6PD) deficiency); *angioedema, Aspirin-induced; blood dyscrasias due to Meprobamate* (sore throat and fever; unusual bleeding or bruising; unusual tiredness or weakness); *convulsions; hyperglycemia* [Aspirin] (rebound effect?); *hypoglycemia* [Aspirin]; *trembling*; convulsions [Aspirin]; heartbeat, slow [Meprobamate]; tiredness; tiredness, severe (in children) [Aspirin]; weakness, severe [Meprobamate].

DIAGNOSTIC TESTS: *anemia, hemolytic, Aspirin-induced; hyperglycemia* [Aspirin]; *hypoglycemia* [Aspirin]; acid-base balance, alterations in (especially respiratory alkalosis and metabolic acidosis) [Aspirin]; bloody urine [Aspirin]; encephalographic abnormalities [Aspirin]; hypokalemia [Aspirin]; hyponatremia [Aspirin]; ketonuria [Aspirin]; proteinuria [Aspirin].

Secondary Actions or Rebound Effects: *insomnia* (trouble in sleeping); *nervousness*; *paradoxical reaction* (unusual excitement); *restlessness.*

Mequinol and Tretinoin (Topical)

Commercial name(s): *Solag .*

Category: Hypopigmenting agent (topical).

Conventional indications: Solar lentigines (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: **burning, mild to severe; desquamation, mild to severe** (severe peeling of skin); **erythema, mild to severe** (severe redness of skin); **hypopigmentation, halo or not** (lightening of skin around treated area); **irritation; pruritus** (severe itching of skin);

stinging, mild to severe; tingling, mild to severe; allergic reaction, contact; crusting; dryness; hypopigmentation, persistent (lightening of skin on treated area); **rash; vesicular bulla** (large blisters on the skin).

Mercaptopurine (Systemic)

Commercial name(s): *Purinethol.*

Category: Antineoplastic; Immunosuppressant.

Conventional indications: Leukemia, acute lymphocytic (treatment); Leukemia, acute nonlymphocytic (treatment); Leukemia, chronic myelocytic (treatment); Lymphomas, non-Hodgkin's (treatment); Bowel disease, inflammatory (treatment); Arthritis, psoriatic (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

MOUTH: stomatitis (sores in mouth and on lips).

STOMACH: appetite, loss of; nausea; ulceration, gastrointestinal (black, tarry stools; stomach pain); vomiting.

ABDOMEN: **biliary stasis** (yellow eyes or skin); **hepatotoxicity** (yellow eyes or skin); ulceration, gastrointestinal (black, tarry stools; stomach pain).

RECTUM: diarrhea.

KIDNEYS: nephropathy, uric acid (joint pain; lower back or side pain; swelling of feet or lower legs).

SKIN: darkening; itching; rash.

GENERALITIES: **anemia** (unusual tiredness or weakness); **immunosuppression** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); hyperuricemia (joint pain; lower back or side pain; swelling of feet or lower legs); weakness; bone marrow depression (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: **anemia; leukopenia; thrombocytopenia; hyperuricemia.**

Meropenem (Systemic)

Commercial name(s): *Merrem I.V.*

Category: Antibacterial (systemic).

Conventional indications: Intra-abdominal infections (treatment); Meningitis, bacterial (treatment); Skin and skin structure infections, complicated (treatment); Neutropenia, febrile (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache*.

EYE: *angioedema* (large, hive-like swelling on eyelids).

NOSE: *epistaxis* (bloody nose).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); *angioedema* (large, hive-like swelling on throat).

STOMACH: **nausea; vomiting;** *disorder, gastrointestinal* (diarrhea; loss of appetite; nausea or vomiting; stomach pain, fullness, or discomfort; indigestion; passing of gas); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

ABDOMEN: *disorder, gastrointestinal* (diarrhea; loss of appetite; nausea or vomiting; stomach pain, fullness, or discomfort; indigestion; passing of gas); *pseudomembranous colitis* (abdominal or stomach cramps and pain, severe; diarrhea, watery and severe, which may also be bloody; fever); *hemoperitoneum* (abdominal pain or swelling; dizziness; fast heartbeat; unusual tiredness or weakness); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

RECTUM: **constipation** (difficulty having a bowel movement (stool)); **diarrhea;** *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); *melena* (bloody, black, or tarry stools).

STOOL: *melena* (bloody, black, or tarry stools).

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: *apnea* (bluish lips or skin; not breathing); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); dyspnea (in rats and mice).

CHEST: *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

EXTREMITIES: *vascular disorder, peripheral* (cold hands and feet); *angioedema* (large, hive-like swelling on hands); ataxia (in rats and mice).

SKIN: *itching; pruritus* (itching skin); *rash; erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *necrolysis, epidermal, toxic* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

GENERALITIES: **anemia** (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); **inflammation at site of injection** (redness and swelling at site of injection); **pain;** *hypoglycemia* (anxiety; blurred vision; chills; cold sweats; coma; confusion; cool pale skin; depression; dizziness; fast heartbeat; headache; increased hunger; nausea; nervousness; nightmares; seizures; shakiness; slurred speech; unusual tiredness or weakness); *injury, accidental; sepsis* (chills; confusion; dizziness;

lightheadedness; fainting; fast heartbeat; fever; rapid, shallow breathing); *shock* (cold clammy skin; confusion, dizziness, lightheadedness; fast, weak pulse; sweating; wheezing); *thrombophlebitis* (pain at site of injection); *vascular disorder, peripheral* (cold hands and feet); *agranulocytosis* (cough or hoarseness; fever with or without chills; general feeling of tiredness or weakness; lower back or side pain; painful or difficult urination; sore throat; sores, ulcers, or white spots on lips or in mouth; unusual bleeding or bruising); *bleeding events* (black, bloody stools; black, bloody vomit; nosebleed); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *neutropenia* (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *seizures* (convulsions) (in patients with pre-existing contributing factors, including a prior history of seizures or CNS abnormality and concurrent administration of medications with seizure potential); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); death (in rats and mice).

DIAGNOSTIC TESTS: **anemia**; *hypoglycemia*; *agranulocytosis*; *leukopenia*; *neutropenia*.

Mesalamine (Oral-Local)

Commercial name(s): *Asacol*; *Mesasal*; *Pentasa*; *Salofalk*.

Category: Bowel disease (inflammatory) suppressant.

Conventional indications: Bowel disease, inflammatory (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

MIND: confusion.

VERTIGO: dizziness; lightheadedness.

HEAD: headache, mild to severe or continuing; *alopecia* (loss of hair).

HEARING: loss, hearing; ringing or buzzing in ears, continuing.

NOSE: rhinitis (runny or stuffy nose or sneezing).

STOMACH: cramps, mild; nausea; pain, mild; vomiting; *anorexia* (loss of appetite); *dyspepsia* (indigestion).

ABDOMEN: cramps, abdominal, mild; pain, abdominal, mild; *flatulence or gas*; *pancreatitis* (back or stomach pain, severe; fast heartbeat; fever; nausea or vomiting; swelling of the stomach).

RECTUM: diarrhea, mild to severe or continuing.

RESPIRATION: fast or deep breathing.

CHEST: *pericarditis* (anxiety; blue or pale skin; chest pain, possibly moving to the left arm, neck, or shoulder; chills; shortness of breath; unusual tiredness or weakness).

BACK: *pain, back.*

EXTREMITIES: *pain, joint.*

SLEEP: drowsiness, severe.

SKIN: *acne; alopecia* (loss of hair).

GENERALITIES: **tiredness or weakness, unusual;** *alopecia* (loss of hair); *intolerance syndrome, acute* (abdominal or stomach cramps or pain, severe; bloody diarrhea; fever; headache, severe; skin rash and itching); *pain, joint; hepatitis* (yellow eyes or skin).

Mesalamine (Rectal-Local)

Commercial name(s): *Canasa; Rowasa; Salofalk.*

Category: Bowel disease (inflammatory) suppressant.

Conventional indications: Bowel disease, inflammatory (treatment); Bowel disease, inflammatory (prophylaxis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: **headache, mild;** *alopecia* (loss of hair).

STOMACH: **cramps, mild; nausea; pain, mild.**

ABDOMEN: **cramps, abdominal, mild; gas or flatulence; pain, abdominal, mild;** *colitis* (stomach cramps, tenderness, pain; watery or bloody diarrhea; fever); *pancreatitis* (back or stomach pain, severe; fast heartbeat; fever; nausea or vomiting; swelling of the stomach).

RECTUM: *diarrhea; irritation, rectal; pain, rectal.*

KIDNEYS: *nephrotoxicity* (blood in urine; change in frequency of urination or amount of urine; difficulty in breathing; drowsiness; increased thirst; loss of appetite; nausea or vomiting; swelling of feet or lower legs; weakness).

RESPIRATION: *alveolitis, fibrosing* (cough; shortness of breath; troubled breathing).

CHEST: *pericarditis* (anxiety; blue or pale skin; chest pain, possibly moving to the left arm, neck, or shoulder; chills; shortness of breath; unusual tiredness or weakness); *alveolitis, fibrosing* (cough; shortness of breath; troubled breathing).

EXTREMITIES: *pain, leg or joint.*

FEVER: *fever.*

SKIN: *acne; alopecia* (loss of hair); *rash and fever.*

GENERALITIES: *alopecia* (loss of hair); *hepatitis* (yellow eyes or skin); *intolerance syndrome, acute* (abdominal or stomach cramps or pain, severe; bloody diarrhea; fever; headache, severe; skin rash); *pain, joint; leukopenia; neutropenia* (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or

weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *thrombocytopenia*.

DIAGNOSTIC TESTS: *leukopenia; neutropenia; pancytopenia; thrombocytopenia*.

Secondary Actions or Rebound Effects: *inflammatory bowel disease (including melena and hematochezia)* (bright red blood in the stool; bloody, black, or tarry stools; severe abdominal or stomach pain; severe diarrhea; pancreatitis; fibrosing alveolitis).

Mesna (Systemic)

Commercial name(s): *MESNEX; Uromitexan*.

Category: Hemorrhagic cystitis prophylactic.

Conventional indications: Hemorrhagic cystitis, oxazaphosphorine-induced (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MOUTH: *taste, unpleasant*.

STOMACH: *nausea; vomiting*.

RECTUM: *diarrhea*.

GENERALITIES: *allergic reaction* (skin rash or itching).

Metformin (Systemic)

Commercial name(s): *Apo-Metformin; Gen-Metformin; Glucophage; Glucophage XR; Glumetza; Glycon; Novo-Metformin; Nu-Metformin*.

Category: Antihyperglycemic agent.

Conventional indications: Type 2 diabetes (treatment); Polycystic ovary syndrome (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

MOUTH: taste, metallic.

STOMACH: *anorexia* (loss of appetite); **dyspepsia** (stomachache); **nausea; vomiting**.

ABDOMEN: *flatulence* (passing of gas).

RECTUM: *diarrhea*.

GENERALITIES: *hypoglycemia* (anxiety; behavior change similar to drunkenness; blurred vision; cold sweats; confusion; cool, pale skin; difficulty in concentrating; drowsiness; excessive hunger; fast heartbeat; headache; nausea; nervousness; nightmares; restless sleep; shakiness; slurred speech; unusual tiredness or weakness); **weight loss**; *acidosis, lactic, potentially fatal* (diarrhea; fast, shallow breathing; muscle pain or cramping; unusual sleepiness; unusual tiredness or weakness); *anemia, megaloblastic* (tiredness; weakness).

DIAGNOSTIC TESTS: *hypoglycemia; anemia, megaloblastic*.

Metformin and Pioglitazone (Systemic)

Commercial name(s): *Actoplus Met.*

Category: Antidiabetic agent.

Conventional indications: Diabetes, type 2 (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

NOSE: sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

STOMACH: nausea.

RECTUM: diarrhea.

BLADDER: infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

RESPIRATION: infection, upper respiratory tract (ear congestion; nasal congestion; chills cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

EXTREMITIES: edema lower limb (swelling of legs and feet).

GENERALITIES: hypoglycemia (anxiety; blurred vision; chills; cold sweats; coma; confusion; cool pale skin; depression; dizziness; fast heartbeat; headache; increased hunger; nausea; nervousness; nightmares; seizures; shakiness; slurred speech; unusual tiredness or weakness); infection, upper respiratory tract (ear congestion; nasal congestion; chills cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); anemia (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); weight increased; acidosis, lactic (abdominal discomfort; decreased appetite; diarrhea; fast, shallow breathing; general feeling of discomfort; muscle pain or cramping; nausea; shortness of breath; sleepiness; unusual tiredness or weakness).

DIAGNOSTIC TESTS: hypoglycemia; anemia.

Methenamine (Systemic)

Commercial name(s): *Hip-Rex; Hiprex; Mandelamine; Urex.*

Category: Antibacterial (systemic).

Conventional indications: Urinary tract infections, bacterial (prophylaxis); Urinary tract infections, bacterial (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: disturbance, gastrointestinal (nausea and vomiting).

BLADDER: *irritation, bladder; urination, painful and frequent.*

URINE: *crystalluria or hematuria* (blood in urine; lower back pain; pain or burning while urinating).

SKIN: *rash.*

DIAGNOSTIC TESTS: *crystalluria; hematuria.*

Methotrexate for Cancer (Systemic)

Other commonly used names: Amethopterin.

Commercial name(s): *Rheumatrex Dose Pack; Trexall, Folex PFS; Methotrexate Sodium; Preservative Free.*

Category: Antineoplastic.

Conventional indications: Carcinoma, breast (treatment); Carcinoma, head and neck (treatment); Carcinoma, lung, non-small cell (treatment); Carcinoma, lung, small cell (treatment); Tumors, trophoblastic, gestational (treatment); Carcinoma, cervical (treatment); Carcinoma, ovarian, epithelial (treatment); Carcinoma, bladder (treatment); Carcinoma, colorectal (treatment); Carcinoma, esophageal (treatment); Carcinoma, gastric (treatment); Carcinoma, pancreatic (treatment); Carcinoma, penile (treatment); Leukemia, acute lymphocytic (treatment); Leukemia, meningeal (prophylaxis and treatment); Leukemia, acute nonlymphocytic (treatment); Lymphomas, non-Hodgkin's (treatment); Lymphomas, Hodgkin's (treatment); Mycosis fungoides (treatment); Osteosarcoma (treatment); Sarcomas, soft tissue (treatment); Carcinomatous meningitis (treatment); Tumors, brain (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *alopecia* (loss of hair); *CNS toxicity (encephalopathy, especially after intrathecal administration, or CNS leukemia)* (back pain; blurred vision; confusion; convulsions; dizziness; drowsiness; fever; headache; unusual tiredness or weakness).

MOUTH: *stomatitis, ulcerative* (sores in mouth and on lips).

STOMACH: *appetite, loss of; nausea; ulceration and bleeding, gastrointestinal, which may be fatal* (black, tarry stools; bloody vomit; diarrhea; stomach pain); *vomiting.*

ABDOMEN: *enteritis, which may be fatal* (black, tarry stools; bloody vomit; diarrhea; stomach pain); *perforation, intestinal, which may be fatal* (black, tarry stools; bloody vomit; diarrhea; stomach pain); *ulceration and bleeding, gastrointestinal, which may be fatal* (black, tarry stools; bloody vomit; diarrhea; stomach pain); *hepatotoxicity, including liver atrophy, necrosis, cirrhosis, fatty changes, periportal fibrosis* (dark urine; yellow eyes or skin).

RECTUM: *bleeding, gastrointestinal, which may be fatal* (black, tarry stools; bloody vomit; diarrhea; stomach pain).

KIDNEYS: *failure, renal, or severe nephropathy* (blood in urine; joint pain; swelling of feet or lower legs).

CHEST: *pneumonitis, potentially fatal, or pulmonary fibrosis* (cough; shortness of breath).

BACK: *arachnoiditis, chemical* (back pain; blurred vision; confusion; convulsions; dizziness; drowsiness; fever; headache; unusual tiredness or weakness).

SKIN: methotrexate toxicity, severe acute, cutaneous vasculitis, or reactivation of sunburn or increased erythematous response to ultraviolet therapy (reddening of skin); *acne*; *alopecia* (loss of hair); *boils*; *itching*; *pale skin*; *rash*.

GENERALITIES: **azotemia** (blood in urine; joint pain; swelling of feet or lower legs); **hyperuricemia** (blood in urine; joint pain; swelling of feet or lower legs); **infection, bacterial** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **septicemia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *alopecia* (loss of hair); *arachnoiditis, chemical* (back pain; blurred vision; confusion; convulsions; dizziness; drowsiness; fever; headache; unusual tiredness or weakness); *central nervous system (CNS) effects* (back pain; blurred vision; confusion; convulsions; dizziness; drowsiness; fever; headache; unusual tiredness or weakness); *demyelination* (back pain; blurred vision; confusion; convulsions; dizziness; drowsiness; fever; headache; unusual tiredness or weakness); *leukoencephalopathy* (back pain; blurred vision; confusion; convulsions; dizziness; drowsiness; fever; headache; unusual tiredness or weakness); *pressure, cerebrospinal fluid, increased* (back pain; blurred vision; confusion; convulsions; dizziness; drowsiness; fever; headache; unusual tiredness or weakness); *CNS toxicity (encephalopathy, especially after intrathecal administration, or CNS leukemia)* (back pain; blurred vision; confusion; convulsions; dizziness; drowsiness; fever; headache; unusual tiredness or weakness).

DIAGNOSTIC TESTS: azotemia; hyperuricemia; leukopenia; thrombocytopenia.

Methotrexate for Noncancerous Conditions (Systemic)

Other commonly used names: Amethopterin.

Commercial name(s): *Folex*; *Folex PFS*; *Methotrexate LPF*; *Rheumatrex*.

Category: Antipsoriatic (systemic); Antirheumatic (disease-modifying).

Conventional indications: Psoriasis (treatment); Arthritis, rheumatoid (treatment); Arthritis, psoriatic (treatment); Dermatomyositis, systemic (treatment); Seronegative arthritides.

Primary Actions or Pathogenetic Symptoms

HEAD: *hair, loss of*.

MOUTH: *gingivitis* (sores in mouth and on lips); *stomatitis, ulcerative* (sores in mouth and on lips).

THROAT: *pharyngitis* (sores in mouth and on lips).

STOMACH: *appetite, loss of*; *nausea*; *ulceration and bleeding, gastrointestinal, which may be fatal* (diarrhea; stomach pain); *vomiting*.

ABDOMEN: *enteritis, which may be fatal* (diarrhea; stomach pain); *perforation, intestinal, which may be fatal* (diarrhea; stomach pain); *ulceration and bleeding, gastrointestinal, which may be fatal* (diarrhea; stomach pain); *hepatotoxicity, including liver atrophy, necrosis, cirrhosis, fatty changes, periportal fibrosis* (yellow eyes or skin).

RECTUM: *bleeding, gastrointestinal, which may be fatal* (diarrhea; stomach pain).

RESPIRATION: *pneumonia, pneumocystis carinii* (cough; shortness of breath; fever).

CHEST: *fibrosis, pulmonary; pericarditis* (chest pain); *pneumonia, pneumocystis carinii* (cough; shortness of breath; fever); *pneumonitis, potentially fatal*.

EXTREMITIES: *necrosis, soft tissue and bone* (sloughing of skin, muscle and bone; following radiation therapy).

SKIN: *acne; boils; hair, loss of; itching; methotrexate toxicity, severe acute, cutaneous vasculitis, or reactivation of sunburn or increased erythematous response to ultraviolet therapy* (reddening of skin); *pale skin; rash; dermatitis, exfoliative; erosion, plaque, painful* (painful peeling of skin patches in the treatment of psoriasis); *erythema multiforme* (dead or loose skin layers; red blisters, ulcers on lips, mouth, eye, nasal passages, and genital area; reddening of skin with or without hair loss); *necrosis, soft tissue and bone* (sloughing of skin, muscle and bone; following radiation therapy); *Stevens-Johnson syndrome*.

GENERALITIES: *hair, loss of; infection, bacterial* (usually asymptomatic; rarely, fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *leukopenia* (usually asymptomatic; rarely, fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *septicemia* (usually asymptomatic; rarely, fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *thrombocytopenia* (usually asymptomatic; rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *erythema multiforme* (dead or loose skin layers; red blisters, ulcers on lips, mouth, eye, nasal passages, and genital area; reddening of skin with or without hair loss); *necrosis, soft tissue and bone* (sloughing of skin, muscle and bone; following radiation therapy); *Stevens-Johnson syndrome*.

DIAGNOSTIC TESTS: *leukopenia; thrombocytopenia*.

Methoxsalen (Extracorporeal-Systemic)

Commercial name(s): *Oxsoralen Lotion; UltraMOP Lotion*.

Category: Antineoplastic.

Conventional indications: Lymphoma, cutaneous T-cell (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *cataracts* (oral methoxsalen, in combination with ultraviolet A [UVA] light).

CHEST: *arrhythmia, cardiac* (irregular heartbeat).

SKIN: *aging of the skin, premature* (exposure to sunlight and/or ultraviolet radiation); *cancer, skin* (oral methoxsalen followed by cutaneous UVA exposure); *erythema* (reddening of skin; with UVA exposure); *burns, serious* (blistering and peeling of skin; reddened, sore skin; from ultraviolet A [UVA] light or sunlight).

GENERALITIES: *arrhythmia, cardiac* (irregular heartbeat); *cancer, skin* (oral Methoxsalen followed by cutaneous UVA exposure); *hypotension; infection, catheter* (redness or pain at the catheter site; fever).

Methoxsalen (Systemic)

Commercial name(s): *8-MOP; Oxsoralen; Oxsoralen-Ultra; Ultra MOP*.

Category: Repigmenting agent (systemic); Antipsoriatic (systemic); Antineoplastic; Hair growth stimulant, alopecia areata (systemic).

Conventional indications: Mycosis fungoides (treatment); Psoriasis (treatment); Vitiligo (treatment); Alopecia areata (treatment); Dermatitis, atopic (treatment); Dermatoses, inflammatory (treatment); Eczema (treatment); Lichen planus (treatment); Skin intolerance to sunlight.

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental; nervousness.*

VERTIGO: *dizziness.*

HEAD: *hair growth stimulant* (hirsutism); *headache.*

EYE: *cataracts* (Psoralein with ultraviolet A [UVA] light).

STOMACH: *nausea.*

EXTREMITIES: swelling, especially in feet or lower legs (overdose or overexposure to ultraviolet light).

SLEEP: *trouble in sleeping.*

SKIN: *dark discoloration* (increase of skin pigment); *hair growth stimulant* (hirsutism); *itching; aging of the skin, premature* (exposure to sunlight and/or ultraviolet radiation); *cancer, skin* [Psoralein]; blistering and peeling of skin (overdose or overexposure to ultraviolet light); reddened, sore skin (overdose or overexposure to ultraviolet light).

GENERALITIES: *hair growth stimulant* (hirsutism); *cancer, skin* [Psoralein]; *hepatitis, toxic*; swelling, especially in feet or lower legs (overdose or overexposure to ultraviolet light).

Methoxsalen (Topical)

Commercial name(s): *Oxsoralen Lotion; UltraMOP Lotion.*

Category: Repigmenting agent (topical); Hair growth stimulant, alopecia areata (topical); Antipsoriatic (topical).

Conventional indications: Vitiligo (treatment); Skin, increased tolerance to sunlight; Psoriasis (treatment); Mycosis fungoides (treatment); Alopecia areata (treatment); Dermatoses, inflammatory (treatment); Eczema (treatment); Lichen planus (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *hair growth stimulant* (hirsutism).

SKIN: *hair growth stimulant* (hirsutism); *aging of the skin, premature* (exposure to sunlight and/or ultraviolet radiation); *cancer, skin*; blistering and peeling of skin (overdose or overexposure to ultraviolet light); reddened, sore skin (overdose or overexposure to ultraviolet light).

GENERALITIES: *hair growth stimulant* (hirsutism); *cancer, skin.*

Methyldopa (Systemic)

Commercial name(s): *Aldomet; Apo-Methyldopa; Dopamet; Novomedopa; Nu-Medopa.*

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: mental status changes (mental depression or anxiety, nightmares or unusually vivid dreams); sedation, excessive.

VERTIGO: hypotension, orthostatic (dizziness or lightheadedness when getting up from a lying or sitting position); dizziness; lightheadedness.

HEAD: headache.

NOSE: stuffy nose.

MOUTH: dryness.

STOMACH: nausea; vomiting; distention, gastric.

ABDOMEN: cholestasis or hepatitis and hepatocellular injury (dark or amber urine; pale stools; yellow eyes or skin); colitis (severe or continuing diarrhea or stomach cramps); pancreatitis (severe stomach pain with nausea and vomiting); flatus.

RECTUM: diarrhea; constipation.

GENITALIA MALE: sexual ability or interest in sex, decreased.

GENITALIA FEMALE: sexual ability or interest in sex, decreased.

CHEST: bradycardia, sinus (slow heartbeat); hyperprolactinemia (swelling of breasts or unusual milk production); myocarditis (fever, chills, troubled breathing, and fast heartbeat); bradycardia.

EXTREMITIES: edema, peripheral (swelling of feet or lower legs).

SLEEP: drowsiness; sedation, excessive.

FEVER: fever, drug (fever, shortly after onset of therapy).

GENERALITIES: hypotension; bradycardia, sinus (slow heartbeat); hypotension, orthostatic (dizziness or lightheadedness when getting up from a lying or sitting position); paresthesias (numbness, tingling, pain, or weakness in hands or feet); anemia, hemolytic, autoimmune (continuing tiredness or weakness after having taken this medication for several weeks); granulocytopenia, reversible; hepatitis and hepatocellular injury (dark or amber urine; pale stools; yellow eyes or skin); leukopenia, reversible; lupus erythematosus-like syndrome, systemic (SLE) (general feeling of discomfort or illness or weakness; joint pain; skin rash or itching); thrombocytopenia; bradycardia; weakness.

DIAGNOSTIC TESTS: anemia, hemolytic, autoimmune; granulocytopenia, reversible; leukopenia, reversible; thrombocytopenia.

Methyldopa and Thiazide Diuretics (Systemic)

Commercial name(s): Aldoclor-150; Aldoclor-250; Aldoril D30; Aldoril D50; Aldoril-15; Aldoril-25; Novodoparil; PMS Dopazide; Supres-150; Supres-250.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: mental changes (mental depression or anxiety; nightmares or unusually vivid dreams).

VERTIGO: **hypotension, orthostatic** (dizziness or lightheadedness when getting up from a lying or sitting position).

HEAD: **headache.**

NOSE: stuffy nose.

MOUTH: **dryness.**

STOMACH: appetite, loss of.

ABDOMEN: cholecystitis (severe stomach pain with nausea and vomiting); cholestasis or hepatitis and hepatocellular injury (dark or amber urine; pale stools; yellow eyes or skin); colitis (severe or continuing diarrhea or stomach cramps); necrosis, hepatic, fatal; pancreatitis (severe stomach pain with nausea and vomiting).

RECTUM: diarrhea.

GENITALIA MALE: sexual ability or interest in sex, decreased.

GENITALIA FEMALE: sexual ability or interest in sex, decreased.

CHEST: bradycardia, sinus (slow heartbeat); hyperprolactinemia (swelling of breasts or unusual milk production); myocarditis (fever, chills, troubled breathing, and fast heartbeat).

EXTREMITIES: gout (joint pain; lower back or side pain).

SLEEP: **drowsiness.**

FEVER: fever, drug, occurring within the first 3 months of therapy (fever, shortly after onset of therapy).

SKIN: sensitivity to sunlight, increased; allergic reaction (skin rash or hives).

GENERALITIES: **hypotension; hypotension, orthostatic** (dizziness or lightheadedness when getting up from a lying or sitting position); bradycardia, sinus (slow heartbeat); electrolyte imbalance such as hyponatremia, hypochloremic alkalosis, and hypokalemia (dryness of mouth; increased thirst; irregular heartbeats; mood or mental changes; muscle cramps or pain; nausea or vomiting; unusual tiredness or weakness; weak pulse); paresthesias (numbness, tingling, pain, or weakness in hands or feet); agranulocytosis (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); anemia, hemolytic, autoimmune (continuing tiredness or weakness after having taken this medication for several weeks); gout (joint pain; lower back or side pain); granulocytopenia, reversible (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); hepatitis and hepatocellular injury (dark or amber urine; pale stools; yellow eyes or skin); leukopenia, reversible (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); lupus erythematosus-like syndrome, systemic (SLE) (general feeling of discomfort or illness or weakness; joint pain; skin rash or itching); thrombocytopenia.

DIAGNOSTIC TESTS: electrolyte imbalance such as hyponatremia, hypochloremic alkalosis, and hypokalemia; agranulocytosis; granulocytopenia, reversible; hyperuricemia; leukopenia, reversible; thrombocytopenia.

Methylene Blue (Systemic)

Commercial name(s): *Urolene Blue.*

Category: Antimethemoglobinemic; Diagnostic aid (tissue dye).

Conventional indications: Methemoglobinemia, acquired (treatment) and Methemoglobinemia, idiopathic (treatment); Tissue dye in diagnostic procedures.

Primary Actions or Pathogenetic Symptoms

MIND: anxiety; confusion.

STOMACH: *nausea; vomiting.*

ABDOMEN: pain, abdominal.

RECTUM: *diarrhea.*

STOOL: discoloration of feces, greenish blue to blue.

BLADDER: *urinary frequency increased; urination, painful.*

URINE: discoloration of urine, greenish blue to blue.

CHEST: pain, chest.

PERSPIRATION: sweating, severe.

GENERALITIES: tremors.

DIAGNOSTIC TESTS: discoloration of urine, greenish blue to blue; anemia; electrocardiographic changes (diminished or inverted T wave amplitude; diminished R wave amplitude).

Secondary Actions or Rebound Effects: *methemoglobin, reduction of levels in the blood* (bluish fingernails, lips, or skin; difficulty in breathing; dizziness; headache; unusual tiredness or weakness).

Methylergonovine (Systemic)

Commercial name(s): *Methergine.*

Category: Uterine stimulant.

Conventional indications: Hemorrhage, postpartum (prophylaxis and treatment); Hemorrhage, postabortal (prophylaxis and treatment); Abortion, incomplete (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: confusion; unconsciousness.

VERTIGO: *dizziness.*

HEARING: *tinnitus* (ringing in the ears).

STOMACH: *nausea; vomiting; pain;* thirst, unusual.

ABDOMEN: *pain, abdominal.*

RECTUM: *diarrhea.*

GENITALIA FEMALE: *oxytocic* (uterine stimulant); **cramping, uterine;** tetany, uterine (severe cramping of the uterus).

RESPIRATION: *dyspnea* (unexplained shortness of breath); depression, respiratory (decreased breathing rate or trouble in breathing; bluish color of skin or inside of nose or mouth).

CHEST: *bradycardia* (slow heartbeat); *vasospasm, coronary* (chest pain); *arrest, cardiac; arrhythmias, ventricular, including fibrillation and tachycardia* (irregular heartbeat);

infarction, myocardial (crushing chest pain; unexplained shortness of breath); angina (chest pain); pulse, fast, weak; tachycardia (fast heartbeat).

EXTREMITIES: *vasospasm, peripheral* (itching of skin; pain in arms, legs, or lower back; pale or cold hands or feet; weakness in legs); vasoconstriction, peripheral, severe (coolness, paleness, or numbness of arms or legs; muscle pain; weak or absent arterial pulse in arms or legs; tingling, itching, and coolness of skin).

SLEEP: drowsiness.

PERSPIRATION: *sweating*.

SKIN: formication (false feeling of insects crawling on the skin).

GENERALITIES: *bradycardia* (slow heartbeat); *allergic reaction, including shock; arrhythmias, ventricular, including fibrillation and tachycardia* (irregular heartbeat); *hypertension, sudden and severe* (sudden, severe headache; blurred vision; seizures); *infarction, myocardial* (crushing chest pain; unexplained shortness of breath); *vasospasm, peripheral* (itching of skin; pain in arms, legs, or lower back; pale or cold hands or feet; weakness in legs); gangrene (dry, shriveled appearance of skin on hands, lower legs, or feet); hemiplegia (paralysis of one side of the body); pulse, fast, weak; seizures; tachycardia (fast heartbeat); thrombophlebitis (pain and redness in an arm or leg); vasoconstriction, peripheral, severe (coolness, paleness, or numbness of arms or legs; muscle pain; weak or absent arterial pulse in arms or legs; tingling, itching, and coolness of skin).

DIAGNOSTIC TESTS: *arrhythmias, ventricular, including fibrillation and tachycardia*.

Methylphenidate (Systemic)

Commercial name(s): *Concerta; Metadate CD; PMS-Methylphenidate; Riphenidate; Ritalin; Ritalin LA; Ritalin SR; Ritalin-SR*.

Category: Central nervous system stimulant.

Conventional indications: Attention-deficit hyperactivity disorder (treatment); Narcolepsy (treatment); Depressive disorder secondary to medical illness (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *central nervous system stimulant; anger; anxiety* (fear; nervousness); *hypomania* (actions that are out of control; irritability; nervousness; talking, feeling, and acting with excitement); *psychosis, toxic* (changes in mood; confusion; delusions; depersonalization; hallucinations) (with prolonged use or at high doses); agitation; confusion; delirium (extreme confusion); euphoria (false sense of well-being); hallucinations (seeing, hearing, or feeling things that are not there).

VERTIGO: *dizziness*.

HEAD: *hair loss, scalp; headache; arteritis and/or occlusion, cerebral* (confusion; severe or sudden headache; sudden loss of coordination; sudden slurring of speech).

EYE: mydriasis (large pupils).

VISION: *blurred vision; changes in vision*.

MOUTH: dryness.

STOMACH: *anorexia* (loss of appetite); *nausea; pain*; vomiting.

ABDOMEN: *liver function, abnormal*.

CHEST: **tachycardia** (fast heartbeat); angina (chest pain); *palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); arrhythmias, cardiac (fast or irregular heartbeat).

EXTREMITIES: arthralgia (joint pain); dyskinesia (uncontrolled movements of the body); *cramps, muscle*; twitching, muscle.

SLEEP: drowsiness; insomnia (sleeplessness; trouble sleeping; unable to sleep).

FEVER: fever; hyperpyrexia (fever).

PERSPIRATION: sweating, increased.

SKIN: hives; rash; *dermatitis, exfoliative* (cracks in the skin; loss of heat from the body; red, swollen skin; scaly skin); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips unusual tiredness or weakness); *Tourette's syndrome* (uncontrolled vocal outbursts and/or tics [uncontrolled repeated body movements]); *urticaria* (hives or welts; itching; redness of skin; skin rash); flushing.

GENERALITIES: **hypertension** (increased blood pressure); **stimulation, CNS** (nervousness; trouble in sleeping); **tachycardia** (fast heartbeat); arthralgia (joint pain); dyskinesia (uncontrolled movements of the body); thrombocytopenia (rarely, unusual bleeding or bruising; black tarry stools; blood in urine or stools; pinpoint red spots on skin); *anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); *convulsions*; *cramps, muscle*; *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips unusual tiredness or weakness); *hypersensitivity reaction* (arthralgia, fever, skin rash or hives, and thrombocytopenia); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); *Tourette's syndrome* (uncontrolled vocal outbursts and/or tics [uncontrolled repeated body movements]); *weight loss* (with prolonged use or at high doses); arrhythmias, cardiac (fast or irregular heartbeat); blood pressure, increased; dryness of mucous membranes; hyperreflexia (overactive reflexes); tremors (trembling or shaking); twitching, muscle.

DIAGNOSTIC TESTS: thrombocytopenia; *anemia*; *leukopenia*.

Secondary Actions or Rebound Effects: *behavior, unusual; depression, mental, severe; tiredness or weakness, unusual.*

Methysergide (Systemic)

Commercial name(s): *Sansert*.

Category: Vascular headache prophylactic.

Conventional indications: Headache, vascular (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: clumsiness; depression, mental; excitement; feeling of being outside the body; hallucinations; thinking, difficulty in.

VERTIGO: **hypotension, orthostatic** (dizziness or lightheadedness, especially when getting up from a lying or sitting position); dizziness, severe.

HEAD: alopecia (hair loss).

VISION: changes in vision.

FACE: flushing; redness.

STOMACH: **nausea**; **pain**; **vomiting**; heartburn.

RECTUM: **diarrhea**; constipation.

CHEST: heartbeat, fast or slow.

EXTREMITIES: clumsiness; edema, peripheral (swelling of hands, ankles, feet, or lower legs); unsteadiness; cold and pale hands or feet.

SLEEP: **drowsiness**; trouble in sleeping.

DREAMS: nightmares.

SKIN: alopecia (hair loss); rash; telangiectasia (raised red spots on skin).

GENERALITIES: **hypotension, orthostatic** (dizziness or lightheadedness, especially when getting up from a lying or sitting position); **ischemia, peripheral vasospasm-induced** (abdominal pain; chest pain; itching of skin; numbness and tingling of fingers, toes, or face; pain in arms, legs, or lower back; pale or cold hands or feet; weakness in legs); alopecia (hair loss); convulsions; heartbeat, fast or slow; leukopenia (rarely, fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); stimulation, CNS, mild (excitement or difficulty in thinking; feeling of being outside the body; hallucinations; nightmares); telangiectasia (raised red spots on skin); weight gain, unusual; fibrosis (chest pain; difficult or painful urination; fever; large increase or decrease in amount of urine; leg cramps; loss of appetite; lower back, side, or groin pain; shortness of breath or difficult breathing; swelling of hands, ankles, feet, or lower legs; tightness in chest; weight loss).

DIAGNOSTIC TESTS: leukopenia.

Secondary Actions or Rebound Effects: *headache*.

Metoclopramide (Systemic)

Commercial name(s): *Apo-Metoclop*; *Metoclopramide Omega*; *Nu-Metoclopramide*; *PMS-Metoclopramide*; *Reglan*.

Category: Dopaminergic blocking agent; Gastrointestinal emptying (delayed) adjunct; Peristaltic stimulant; Antiemetic.

Conventional indications: Radiography, gastrointestinal, adjunct and Intubation, intestinal; Gastroparesis (treatment); Nausea and vomiting, cancer chemotherapy-induced (prophylaxis); Nausea and vomiting, postoperative (prophylaxis); Reflux, gastroesophageal (treatment) [Oral metoclopramide]; Nausea and vomiting, postoperative, drug-related (treatment); Gastric emptying, slow (treatment); Gastric stasis, in preterm infants (treatment); Pneumonitis, aspiration (prophylaxis); Headache, vascular (treatment adjunct); Hiccups, persistent (treatment); Lactation deficiency (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *restlessness; depression, mental; panic-like sensation* [high doses]; confusion.

VERTIGO: *dizziness; balance control, loss of.*

HEAD: *headache.*

EYE: *inability to move eyes.*

FACE: *mask-like face; muscle spasms of face.*

MOUTH: *dryness, unusual; difficulty in speaking.*

THROAT: *difficulty in swallowing.*

EXTERNAL THROAT: *muscle spasms of neck.*

STOMACH: *nausea.*

ABDOMEN: *peristaltic stimulant; hepatotoxicity* (abdominal pain or tenderness; clay colored stools; dark urine; decreased appetite; fever; headache; itching; loss of appetite; nausea and vomiting; skin rash; swelling of feet or lower legs; unusual tiredness or weakness; yellow eyes or skin).

RECTUM: *peristaltic stimulant; diarrhea; constipation* (rebound effect).

BLADDER: *frequency, urinary* (increased need to urinate; passing urine more often); *incontinence* (loss of bladder control).

GENITALIA MALE: *impotence* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection).

GENITALIA FEMALE: *menstruation, changes in.*

CHEST: *stimulation, prolactin* (increased flow of breast milk); *tenderness and swelling, breast; tachycardia* (fast or irregular heartbeat).

BACK: *muscle spasms of back.*

EXTREMITIES: *movements, tic-like or twitching; movements of body, twisting; restless legs syndrome* (aching or discomfort in lower legs or sensation of crawling in legs) [high doses]; *stiffness of arms or legs; walk, shuffling; weakness of arms and legs.*

SLEEP: *drowsiness; insomnia* (trouble in sleeping).

SKIN: *rash.*

GENERALITIES: ***tiredness or weakness, unusual**; agranulocytosis* (chills; fever; sore throat; general feeling of tiredness or weakness); *extrapyramidal effects, dystonic* (muscle spasms of face, neck, and back; tic-like or twitching movements; twisting movements of body; inability to move eyes; weakness of arms and legs); *extrapyramidal effects, parkinsonian* (difficulty in speaking or swallowing; loss of balance control; mask-like face; shuffling walk; stiffness of arms or legs; trembling and shaking of hands and fingers); *hypotension* (dizziness or fainting); *hypertension* (dizziness; severe or continuing headaches; increase in blood pressure) (rebound effect?); *methemoglobinemia* (in premature and full-term neonates); *movements, tic-like or twitching; movements of body, twisting; neuroleptic malignant syndrome (NMS)* (convulsions; difficulty in breathing; fast heartbeat; high fever; high or low blood pressure; increased sweating; loss of bladder control; severe muscle stiffness; unusually pale skin; tiredness); *tachycardia* (fast or irregular heartbeat); *walk, shuffling; seizures.*

DIAGNOSTIC TESTS: *agranulocytosis; methemoglobinemia.*

Secondary Actions or Rebound Effects: *irritability, unusual; agitation* (unusual nervousness, restlessness, or irritability) [high doses]; *tardive dyskinesia* (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled

chewing movements; uncontrolled movements of arms and legs); *trembling and shaking of hands and fingers*.

Metronidazole (Systemic)

Commercial name(s): *Apo-Metronidazole; Flagyl; Flagyl ER; Flagyl I.V.; Flagyl I.V. RTU; Metric 21; Metro I.V.; Novonidazol; Protostat; Triacide.*

Category: Antibacterial (systemic); Antiprotozoal; Bowel disease (inflammatory) suppressant; Anthelmintic (systemic).

Conventional indications: Amebiasis, extraintestinal (treatment); Amebiasis, intestinal (treatment) [Oral Metronidazole]; Bone and joint infections (treatment); Brain abscess (treatment); Central nervous system (CNS) infections (treatment); Endocarditis, bacterial (treatment); Intra-abdominal infections (treatment); Pelvic infections, female (treatment); Perioperative infections, colorectal (prophylaxis) [Intravenous metronidazole]; Pneumonia, *Bacteroides* species (treatment); Septicemia, bacterial (treatment); Skin and soft tissue infections (treatment); Trichomoniasis (treatment) [Oral Metronidazole]; Vaginosis, bacterial (treatment) [Oral Metronidazole]; Balantidiasis (treatment); Bowel disease, inflammatory (treatment); Colitis, antibiotic-associated (treatment); Dracunculiasis (treatment); Gastritis, *Helicobacter pylori* –associated (treatment adjunct) or Ulcer, duodenal, *Helicobacter pylori* –associated (treatment adjunct) [in combination with bismuth subsalicylate or colloidal bismuth subcitrate, and other oral antibiotic therapy, such as ampicillin or amoxicillin]; Giardiasis (treatment) [Oral Metronidazole]; Periodontal infections (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *clumsiness; mood or other mental changes.*

VERTIGO: *dizziness; lightheadedness.*

HEAD: *headache.*

MOUTH: *dryness; taste, unpleasant or sharp metallic; taste sensation, change in.*

STOMACH: **disturbance, gastrointestinal** (diarrhea; loss of appetite; nausea or vomiting; stomach pain or cramps); nausea; vomiting.

ABDOMEN: **disturbance, gastrointestinal** (diarrhea; loss of appetite; nausea or vomiting; stomach pain or cramps); *pancreatitis* (severe abdominal and back pain; anorexia; nausea and vomiting); *sense of pelvic pressure.*

BLADDER: *urination, frequent or painful; urine flow, inability to control.*

URINE: *dark urine.*

GENITALIA FEMALE: *candidiasis, vaginal* (any vaginal irritation, discharge, or dryness not present before therapy).

EXTREMITIES: *neuropathy, peripheral* (numbness, tingling, pain, or weakness in hands or feet); *ataxia; clumsiness; unsteadiness.*

SKIN: *hypersensitivity* (skin rash, hives, redness, or itching).

GENERALITIES: *neuropathy, peripheral* (numbness, tingling, pain, or weakness in hands or feet); *seizures; CNS toxicity* (ataxia - clumsiness or unsteadiness; encephalopathy - mood or other mental changes); *encephalopathy; leukopenia* (sore throat and fever);

thrombocytopenia, reversible (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *thrombophlebitis* (pain, tenderness, redness, or swelling at site of injection).

DIAGNOSTIC TESTS: *dark urine; leukopenia; thrombocytopenia, reversible.*

Metronidazole (Topical)

Commercial name(s): *MetroCream; MetroGel; MetroLotion.*

Category: Antirosacea agent (topical).

Conventional indications: Rosacea (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *watering.*

MOUTH: *taste, metallic.*

STOMACH: *nausea.*

EXTREMITIES: *numbness of extremities; tingling of extremities.*

SKIN: *burning; dryness; irritation not present before therapy; redness not present before therapy; stinging.*

Metronidazole (Vaginal)

Commercial name(s): *Flagyl; MetroGel-Vaginal; Nidagel.*

Category: Anti-infective (vaginal).

Conventional indications: Vaginosis, bacterial (treatment); Trichomoniasis (treatment) [tablets and cream].

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness; lightheadedness.*

HEAD: *headache.*

MOUTH: *dryness; furry tongue; taste sensation, altered, including metallic taste.*

STOMACH: *appetite, loss of; nausea; vomiting.*

ABDOMEN: *cramping, abdominal; pain, abdominal.*

RECTUM: *diarrhea.*

BLADDER: *urination, burning or increased frequency of.*

URINE: *dark urine.*

GENITALIA MALE: *burning or irritation of penis of sexual partner.*

GENITALIA FEMALE: **cervicitis, candida** (itching in the vagina; pain during sexual intercourse; thick, white vaginal discharge without odor or with mild odor); **vaginitis** (itching in the vagina; pain during sexual intercourse; thick, white vaginal discharge without odor or with mild odor); **vulvitis** (itching, stinging or redness of genital area).

EXTREMITIES: *ataxia; neuropathy, peripheral.*

GENERALITIES: *convulsions.*

DIAGNOSTIC TESTS: *dark urine.*

Metyrapone (Systemic)

Commercial name(s): *Metopirone*.

Category: Diagnostic aid (pituitary function); Antiadrenal.

Conventional indications: Adrenocortical insufficiency, secondary (diagnosis); Cushing's syndrome (treatment); Cushing's syndrome (diagnosis).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; mental slowing*; consciousness, decrease in; nervousness.

VERTIGO: *dizziness; lightheadedness*.

HEAD: *headache; alopecia* (greater-than-normal loss of scalp hair); *hirsutism* (excessive hair growth).

STOMACH: *nausea; anorexia* (loss of appetite); *pain, epigastric* (upper abdominal or stomach pain); *vomiting*; pain.

ABDOMEN: pain, abdominal.

RECTUM: diarrhea.

GENITALIA FEMALE: *enlargement of clitoris*.

CHEST: arrhythmias, cardiac (irregular heartbeat).

EXTREMITIES: *edema* (swelling of feet or lower legs; rapid weight gain) (with long-term and high-dose therapy).

SLEEP: *drowsiness*.

PERSPIRATION: *increased sweating*.

SKIN: *acne, worsening of; alopecia* (greater-than-normal loss of scalp hair); *hirsutism* (excessive hair growth).

GENERALITIES: *allergic reaction* (skin rash); *alkalosis, hypokalemic* (irregular heartbeat; muscle cramps or pain; severe weakness of extremities and trunk); *alkalosis, hypokalemic* (irregular heartbeat; muscle cramps or pain; severe weakness of extremities and trunk); *alopecia* (greater-than-normal loss of scalp hair); *depression, bone marrow* (sore throat or fever; unusual bleeding or bruising; unusual tiredness or weakness); *edema* (swelling of feet or lower legs; rapid weight gain) (with long-term and high-dose therapy); *hirsutism* (excessive hair growth); adrenal insufficiency, acute, including symptoms such as nervousness, confusion, or sudden weakness, dehydration (unusual thirst), decrease in consciousness, cardiac arrhythmias (irregular heartbeat); arrhythmias, cardiac (irregular heartbeat); dehydration (unusual thirst); weakness, sudden.

DIAGNOSTIC TESTS: *alkalosis, hypokalemic; depression, bone marrow*.

Metyrosine (Systemic)

Commercial name(s): *Demser*.

Category: Antihypertensive (pheochromocytoma).

Conventional indications: Pheochromocytoma (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **trouble in speaking;** *anxiety; confusion; depression mental; hallucinations; sedative effects.*

NOSE: *stuffy nose.*

FACE: *trismus* (muscle spasm, especially of neck and back).

MOUTH: **drooling; trouble in speaking; salivation, decreased** (dryness of mouth).

THROAT: *edema, pharyngeal* (shortness of breath).

STOMACH: *nausea; pain; vomiting.*

RECTUM: **diarrhea, possibly severe.**

BLADDER: *dysuria caused by crystalluria or urolithiasis* (painful urination).

KIDNEYS: *urolithiasis.*

URINE: *crystalluria; hematuria* (blood in urine).

GENITALIA MALE: *ejaculating, trouble in; impotence.*

CHEST: *galactorrhea* (unusual milk production); *swelling of breasts; arrhythmias, life-threatening* (during anesthesia and surgery).

EXTREMITIES: **trembling and shaking of hands and fingers; swelling of feet or lower legs.**

SLEEP: **drowsiness, moderate to severe; sedative effects.**

SKIN: *urticaria* (itching; skin rash).

GENERALITIES: *hypotension* (alpha-adrenergic antagonist action); **extrapyramidal effects** (drooling; trembling and shaking of hands and fingers; trouble in speaking); *allergic reaction* (urticaria, pharyngeal edema); *anemia* (unusual tiredness or weakness); *arrhythmias, life-threatening* (during anesthesia and surgery); *energy, increased; eosinophilia; parkinsonism, frank* (restlessness; shuffling walk; tic-like [jerky] movements of head, face, mouth, and neck); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin).

DIAGNOSTIC TESTS: *anemia; crystalluria or urolithiasis; eosinophilia; hematuria; thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin).

Secondary Actions or Rebound Effects: *hypertensive crises, risk of* (during surgery); *thrombocytosis; trouble in sleeping; urolithiasis.*

Mexiletine (Systemic)

Commercial name(s): *Mexitil.*

Category: Antiarrhythmic.

Conventional indications: Arrhythmias, ventricular (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **nervousness; confusion; speech, slurred.**

VERTIGO: **dizziness; lightheadedness.**

HEAD: *headache.*

VISION: *blurred vision.*

HEARING: *ringing in the ears.*

MOUTH: *speech, slurred.*

STOMACH: *heartburn; nausea; vomiting;* disturbances, gastrointestinal.

ABDOMEN: *necrosis, hepatic;* disturbances, gastrointestinal.

RECTUM: *constipation; diarrhea.*

RESPIRATION: *shortness of breath;* respiratory failure.

CHEST: *contractions, ventricular, premature* (fast or irregular heartbeat); *pain, chest;* asystole.

EXTREMITIES: *trembling or shaking of hands; trouble in walking; unsteadiness; numbness of fingers and toes; tingling of fingers and toes.*

SLEEP: *trouble in sleeping.*

SKIN: *rash.*

GENERALITIES: *trouble in walking; contractions, ventricular, premature* (fast or irregular heartbeat); *tiredness or weakness, unusual;* *agranulocytosis* (fever or chills); *leukopenia* (fever or chills); *seizures; thrombocytopenia* (unusual bleeding or bruising); death.

DIAGNOSTIC TESTS: *agranulocytosis; leukopenia; thrombocytopenia.*

Secondary Actions or Rebound Effects: *arrhythmias, ventricular, exacerbation of, include torsade de pointes.*

Micafungin (Systemic)

Commercial name(s): *Mycamine.*

Category: Antifungal (systemic)

Conventional indications: *Candidiasis, esophageal (treatment); Candidiasis, (prophylaxis).*

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

FACE: *flushing* (feeling of warmth; redness of the face).

MOUTH: *dysgeusia* (loss of taste; change in taste).

EXTERNAL THROAT: *flushing* (feeling of warmth; redness of the neck).

STOMACH: *nausea; pain, abdominal* (stomach pain); *vomiting; appetite decreased; dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); *pain, upper abdominal* (upper stomach pain).

ABDOMEN: *hyperbilirubinemia* (yellow eyes or skin); *pain, abdominal* (stomach pain); *hepatocellular damage* (fever; stomach pain; yellow eyes or skin); *impairment, hepatic function* (abdominal or stomach pain; chills; light-colored stools; dark urine; diarrhea; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *pain, upper abdominal* (upper stomach pain).

RECTUM: *diarrhea.*

KIDNEYS: *failure, renal, acute* (agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness); *impairment, renal* (lower back/side pain; decreased frequency/amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure).

CHEST: *flushing* (feeling of warmth; redness of the upper chest).

EXTREMITIES: *flushing* (feeling of warmth; redness of the arms).

SLEEP: *somnolence* (sleepiness or unusual drowsiness).

CHILL: *rigors*.

FEVER: *pyrexia* (fever); *neutropenia, febrile* (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness).

SKIN: *rash; flushing* (feeling of warmth; redness of the face, neck, arms and occasionally upper chest); *pruritus* (itching skin).

GENERALITIES: *hyperbilirubinemia* (yellow eyes or skin); *hypokalemia* (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); *hypomagnesemia* (drowsiness; loss of appetite; mood or mental changes; muscle spasms [tetany] or twitching; seizures; nausea or vomiting; trembling; unusual tiredness or weakness); *hypophosphatemia* (bone pain; convulsions; loss of appetite; trouble breathing; unusual tiredness or weakness); *inflammation, infusion site; leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *lymphopenia* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *neutropenia, febrile or not* (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *phlebitis* (bluish color changes in skin color; pain; tenderness; swelling of foot or leg); *anaphylactoid reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); *anemia, hemolytic* (back, leg, or stomach pains; bleeding gums; chills; dark urine; difficulty breathing; fatigue; fever; general body swelling; headache; loss of appetite; nausea or vomiting; nosebleeds; pale skin; sore throat; yellowing of the eyes or skin); *flushing* (feeling of warmth; redness of the face, neck, arms and occasionally upper chest); *hypersensitivity* (difficulty in breathing or swallowing; fast heartbeat; shortness of breath; skin itching; rash, or redness; swelling of face, throat, or tongue); *hypertension* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); *hypocalcemia* (abdominal cramps; confusion; convulsions; difficulty in breathing; irregular heartbeats; mood or mental changes; muscle

cramps in hands, arms, feet, legs, or face; numbness and tingling around the mouth, fingertips, or feet; shortness of breath; tremor); *pain, injection site; shock* (cold clammy skin; confusion; dizziness; lightheadedness; fast, weak pulse; sweating; wheezing); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: *hyperbilirubinemia; hypokalemia; hypomagnesemia; hypophosphatemia; leukopenia; lymphopenia; liver function test results, abnormal; neutropenia, febrile or not; anemia, hemolytic; hypocalcemia; thrombocytopenia; white blood cell count decreased.*

Miconazole (Topical)

Commercial name(s): *Micatin; Monistat-Derm; Zeasorb-AF.*

Category: Antifungal (topical).

Conventional indications: Candidiasis, cutaneous (treatment); Tinea corporis (treatment); Tinea cruris (treatment); Tinea pedis (treatment); Tinea versicolor (treatment); Paronychia (treatment); Tinea barbae (treatment); Tinea capitis (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *blistering, burning, redness, skin rash, or other sign of skin irritation not present before therapy.*

Midazolam (Systemic)

Commercial name(s): *Versed.*

Category: Sedative-hypnotic; Anesthetic, general, adjunct; Anesthetic, local, adjunct; Anticonvulsant.

Conventional indications: Sedation and amnesia; Sedation, conscious; Sedation; Anesthesia, general, adjunct; Anesthesia, local, adjunct; Status epilepticus (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anesthesia* (unconsciousness); *peacefulness* (serenity, calm); *amnesia; delirium, emergence.*

VERTIGO: *dizziness; feeling faint; lightheadedness.*

HEAD: *headache; hypoxia, cerebral.*

VISION: *blurred vision; changes in vision.*

STOMACH: *hiccups; nausea; vomiting.*

RESPIRATION: *apnea; depression, respiratory; arrest, respiratory* (sometimes resulting in death); *difficulty in breathing; tidal volume decreased; wheezing.*

COUGH: *coughing.*

CHEST: *arrest, cardiac* (with rapid administration, sometimes resulting in death).

EXTREMITIES: *numbness in hands or feet; pain in hands or feet; stiffness, muscle, at intramuscular injection site; tingling in hands or feet; weakness in hands or feet; movements of body, uncontrolled or jerky; tremor, muscle.*

SLEEP: *drowsiness, prolonged.*

SKIN: *hives; itching; rash.*

GENERALITIES: *anesthesia; hypotension; pain at intramuscular injection site, or during intravenous injection; tenderness at intravenous injection site; hardness at injection site; lumps at injection site; redness at injection site; stiffness, muscle, at intramuscular injection site; death; encephalopathy, hypoxic; impairment of psychomotor skills; movements of body, uncontrolled or jerky; phlebitis; tremor, muscle; depression, cardiovascular.*

Secondary Actions or Rebound Effects: *paradoxical reaction: excitement, unusual; heartbeat, irregular or fast; hyperventilation; irritability, unusual; restlessness, unusual; tidal volume decreased.*

Midodrine (Systemic)

Commercial name(s): *ProAmatine.*

Category: Antihypotensive, idiopathic orthostatic; Vasopressor.

Conventional indications: Hypotension (treatment); Hypotension, intradialytic (treatment); Hypotension, secondary, psychotropic agent-induced (treatment); Hypotension, secondary, infection-related (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; confusion; nervousness.*

VERTIGO: *dizziness.*

HEAD: *burning, itching, or prickling of the scalp; feeling of pressure in the head; headache.*

VISION: *visual field defects.*

FACE: *flushing of face.*

MOUTH: *dryness; canker sores.*

STOMACH: *distress, gastrointestinal; heartburn; nausea.*

ABDOMEN: *distress, gastrointestinal; flatulence.*

BLADDER: *urinary frequency, retention, or urgency.*

CHEST: *bradycardia (fainting; increased dizziness; slow pulse).*

BACK: *backache.*

EXTREMITIES: *cramps, leg.*

SLEEP: *insomnia (trouble in sleeping); somnolence (drowsiness) (rebound effect).*

CHILL: *chills.*

SKIN: *piloerection (goosebumps); rash; dryness; pain or sensitivity of skin to touch.*

GENERALITIES: *hypertension, supine, sitting or regular (blurred vision; cardiac awareness; headache; pounding in the ears); vasopressor, vasoconstriction; bradycardia (fainting; increased dizziness; slow pulse); systolic blood pressures of about 200 mmHg; weakness; sensation of coldness.*

DIAGNOSTIC TESTS: *systolic blood pressures of about 200 mmHg.*

Secondary Actions or Rebound Effects: vasodilation.

Mifepristone (Systemic)

Commercial name(s): *Mifeprex*.

Category: Abortifacient.

Conventional indications: Abortion.

Primary Actions or Pathogenetic Symptoms

MIND: anxiety.

VERTIGO: **dizziness**; syncope (fainting or light-headedness when getting up from a lying or sitting position).

HEAD: **headache**.

NOSE: sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

STOMACH: **nausea**; **vomiting**; dyspepsia (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain).

ABDOMEN: **pain, abdominal**.

RECTUM: **diarrhea**.

GENITALIA FEMALE: **abortion**; **cramping, uterine**; hemorrhage, uterine (excessively heavy vaginal bleeding); leukorrhea (increased clear or white vaginal discharge); vaginitis (itching of the vagina or genital area; pain during sexual intercourse; thick, white vaginal discharge with no odor or with a mild odor); pregnancy, ruptured ectopic (sudden increase in abdominal or shoulder pain; unusual or large amount of vaginal bleeding; pale, cold clammy skin; confusion; dizziness, lightheadedness; fast, weak pulse; sweating).

CHEST: infarction, myocardial (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting).

BACK: **pain, back**.

EXTREMITIES: pain, leg.

SLEEP: insomnia (sleeplessness or trouble sleeping).

CHILL: rigors (shaking chills).

FEVER: fever.

GENERALITIES: **fatigue** (unusual tiredness or weakness); anemia (pale skin; troubled breathing, exertional; unusual bleeding or bruising; unusual tiredness or weakness); asthenia (lack or loss of strength); hemoglobin concentration, decrease in (unusual tiredness or weakness) (in French trials only); infection, viral (chills; cough or hoarseness; fever; cold; flu-like symptoms); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); infarction, myocardial (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); infection, systemic bacterial (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); shock, septic, fatal.

DIAGNOSTIC TESTS: anemia; hemoglobin concentration, decrease in.

Miglitol (Systemic)

Commercial name(s): *Glyset*.

Category: Antidiabetic agent.

Conventional indications: Diabetes, type 2 (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: **pain, abdominal** (stomach or abdomen pain).

ABDOMEN: **flatulence** (bloated full feeling; excess air or gas in stomach or intestines; passing gas); **pain, abdominal** (stomach or abdomen pain).

RECTUM: **diarrhea** (increase in bowel movements; loose stools; soft stools).

SKIN: *rash*.

GENERALITIES: *hypoglycemia*.

DIAGNOSTIC TESTS: *hypoglycemia*.

Miglustat (Systemic)

Commercial name(s): *Zavesca*.

Category: Substrate reduction therapy.

Conventional indications: Gaucher disease, type 1 mild to moderate (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: memory loss.

VERTIGO: dizziness; gait, unsteady.

HEAD: headache.

VISION: visual disturbances (change in vision).

MOUTH: dryness.

STOMACH: **anorexia** (loss of appetite; weight loss); **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); **nausea**; **pain, abdominal** (stomach pain); **pain, epigastric** (pain or discomfort in chest, upper stomach, or throat; heartburn); **vomiting**.

ABDOMEN: **bloating** (swelling); **distention, abdominal, with and without gas** (swelling of abdominal or stomach area; full or bloated feeling or pressure in the stomach); **flatulence** (bloated, full feeling; excess air or gas in stomach or intestines; passing gas); **pain, abdominal** (stomach pain).

RECTUM: **constipation** (difficulty having a bowel movement [stool]); **diarrhea** (rebound effect?).

GENITALIA FEMALE: **menstrual disorder** (menstrual changes).

BACK: **pain, back**.

EXTREMITIES: **cramps**; **cramps, leg**; **heaviness in limbs**; *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness); *tremor, or exacerbation of existing* (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet).

GENERALITIES: **cramps**; **paresthesia** (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); **thrombocytopenia** (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); **weakness, generalized**; **weight decrease**; granulocytopenia; leukopenia; neutropenia.
DIAGNOSTIC TESTS: **thrombocytopenia**; *disaccharidase inhibition*; granulocytopenia; leukopenia; neutropenia.

Milrinone (Systemic)

Commercial name(s): *Primacor*.

Category: Cardiotonic.

Conventional indications: Congestive heart failure (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache*.

CHEST: *fullness or tonic effect in the heart*; *arrhythmias*; *angina*; *atrioventricular (AV) nodal conduction time decreased*; *ventricular ectopic beats, increase, including nonsustained ventricular tachycardia*.

GENERALITIES: *arrhythmias*; *hypotension*; *atrioventricular (AV) nodal conduction time decreased*; *thrombocytopenia*; *ventricular ectopic beats, increase, including nonsustained ventricular tachycardia*.

DIAGNOSTIC TESTS: *atrioventricular (AV) nodal conduction time decreased*; *thrombocytopenia*; *ventricular ectopic beats, increase, including nonsustained ventricular tachycardia*.

Minocycline (Mucosal-Local)

Commercial name(s): *Arestin*.

Category: Antibacterial (dental).

Conventional indications: Periodontitis (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache*.

MOUTH: **gingivitis** (bleeding from gums; redness or swelling of gums); **stomatitis** (pain, redness, and swelling in the mouth); *ulceration, mouth* (painful sores in the mouth).

TEETH: **caries** (toothache); **disorder, tooth**; **pain, dental**; *infection, dental* (bad taste in mouth; discharge from gums; foul breath odor; redness or swelling of gums).

THROAT: *pharyngitis* (sore throat).

STOMACH: *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain).

SKIN: *photosensitivity* (increased sensitivity to sunlight).

GENERALITIES: **infection** (chills; fever); *flu-like syndrome* (abdominal pain; chills; cough; headache; pain in joints or muscles; runny nose; sneezing; sore throat); *mucous membrane disorder*; *pain*.

Minoxidil (Systemic)

Commercial name(s): *Loniten*.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: **hypertrichosis** (excessive hair growth); vasodilation (headache).

FACE: **hypertrichosis** (excessive hair growth, usually on face, arms, and back).

CHEST: **heartbeat, fast or irregular;** angina, new or exacerbated (chest pain); effusion, pericardial (shortness of breath); hypertension, pulmonary (shortness of breath); pericarditis (chest pain); tenderness, breast, in males and females; toxicity, myocardial, severe (in dogs).

BACK: **hypertrichosis** (excessive hair growth, usually on face, arms, and back).

EXTREMITIES: **hypertrichosis** (excessive hair growth, usually on face, arms, and back).

SKIN: **flushing; hypertrichosis** (excessive hair growth, usually on face, arms, and back); **redness;** allergic reaction (skin rash and itching).

GENERALITIES: hypotension; **heartbeat, fast or irregular; flushing; hypertrichosis** (excessive hair growth, usually on face, arms, and back); **reflex sympathetic activation** (fast or irregular heartbeat; flushing or redness of skin); **retention, sodium and water** (bloating; swelling of feet or lower legs; rapid weight gain of more than 5 pounds [2 kg] in adults or 2 pounds [1 kg] in children); paresthesia (numbness or tingling of hands, feet, or face) (long-term use); Stevens-Johnson syndrome (skin rash and itching); vasodilation (headache).

DIAGNOSTIC TESTS: *electrocardiogram (ECG) changes, nonspecific.*

Minoxidil (Topical)

Commercial name(s): *Apo-Gain; Gen-Minoxidil; Minoxigaine; Rogaine; Rogaine Extra Strength for Men; Rogaine for Men; Rogaine for Women.*

Category: Hair growth stimulant, alopecia androgenetica, topical.

Conventional indications: Alopecia androgenetica (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *lightheadedness.*

HEAD: **hair growth stimulant** (hirsutism); *burning of scalp; headache.*

VISION: *visual disturbances, including decreased visual acuity* (blurred vision or other changes in vision).

FACE: *allergic reaction* (swelling of face).

GENITALIA MALE: *sexual dysfunction* (decrease of sexual ability or desire).

GENITALIA FEMALE: *sexual dysfunction* (decrease of sexual ability or desire).

CHEST: *heartbeat, fast or irregular; pain, chest.*

EXTREMITIES: *neuritis* (numbness or tingling of hands, feet, or face).

SKIN: *hair growth stimulant* (hirsutism); *dermatitis, contact* (itching or skin rash); *allergic reaction* (reddened skin; skin rash; swelling of face); *folliculitis at site of application* (acne; inflammation or soreness at root of hair).

GENERALITIES: *hair growth stimulant* (hirsutism); *folliculitis at site of application* (acne; inflammation or soreness at root of hair); *heartbeat, fast or irregular*; *hypertension, reflex*; *hypotension*; *neuritis* (numbness or tingling of hands, feet, or face); *retention, sodium and water* (swelling of face, hands, feet, or lower legs; rapid weight gain); *vasodilation* (flushing; headache)

Secondary Actions or Rebound Effects: *alopecia, increased* (increased hair loss).

Mirtazapine (Systemic)

Commercial name(s): *Remeron; Remeron SolTab.*

Category: Antidepressant.

Conventional indications: Depressive disorder, major (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation; anxiety; apathy; confusion; mood or mental changes; thinking, abnormal; delusions; depersonalization; emotional lability; hallucinations; hostility; mania; disorientation; memory, impaired.*

VERTIGO: *dizziness; hypotension, orthostatic* (dizziness or fainting when getting up suddenly from a sitting or lying position); *vertigo* (sense of constant movement of self or surroundings).

FACE: *edema, facial* (swelling of face).

MOUTH: *dryness.*

STOMACH: *appetite, increased; nausea; thirst, increased; vomiting.*

ABDOMEN: *pain, abdominal.*

RECTUM: *constipation.*

BLADDER: *frequency, urinary* (increased need to urinate).

GENITALIA MALE: *impotence* (decreased sexual ability).

GENITALIA FEMALE: *menstrual changes* (painful menstruation; absence of menstruation).

RESPIRATION: *dyspnea* (shortness of breath).

CHEST: *tachycardia* (fast heartbeat).

BACK: *pain, back.*

EXTREMITIES: *myalgia* (pain in muscles).

SLEEP: *drowsiness.*

DREAMS: *abnormal dreams.*

SKIN: *rash.*

GENERALITIES: *weight gain; asthenia* (weakness); *edema* (swelling); *flu-like symptoms; hyperesthesia* (increased sensitivity to touch); *hyperkinesia* (increased movement); *hypokinesia* (decreased movement) (rebound effect); *hypotension* (low blood pressure); *hypotension, orthostatic* (dizziness or fainting when getting up suddenly from a

sitting or lying position); *tremor* (trembling or shaking); *agranulocytosis* (chills; fever; sore throat; sores in mouth); *neutropenia* (chills; fever; sore throat; sores in mouth); *seizures*; tachycardia (fast heartbeat).

DIAGNOSTIC TESTS: *agranulocytosis*; *neutropenia*.

Misoprostol (Systemic)

Commercial name(s): *Cytotec*.

Category: Gastric mucosa protectant; Antiulcer agent.

Conventional indications: Abortion, therapeutic (treatment) [Orally or vaginally administered]; Abortion, second trimester (treatment) [vaginally administered]; Cervical ripening [vaginally administered]; Hemorrhage, postpartum (prophylaxis); Labor, induction of [vaginally administered]; Ulcer, gastric, nonsteroidal anti-inflammatory drug-induced (prophylaxis); Ulcer, gastric, nonsteroidal anti-inflammatory drug-induced (treatment); Ulcer, duodenal (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: sedation (drowsiness).

HEAD: *headache*.

STOMACH: **pain, mild;** *nausea*; *vomiting*.

ABDOMEN: **pain, abdominal;** *flatulence* (gas).

RECTUM: *diarrhea*; *constipation*.

GENITALIA FEMALE: *bleeding, vaginal*; *stimulation, uterine* (cramps in lower abdomen or stomach area).

RESPIRATION: dyspnea (troubled breathing).

CHEST: bradycardia (slow heartbeat); palpitations (fast or pounding heartbeat).

SLEEP: sedation (drowsiness).

FEVER: fever.

GENERALITIES: bradycardia (slow heartbeat); convulsions (seizures); hypotension (low blood pressure); palpitations (fast or pounding heartbeat); seizures; tremor.

Secondary Actions or Rebound Effects: *dyspepsia* (heartburn, indigestion, or acid stomach).

Mitomycin (Systemic)

Commercial name(s): *Mutamycin*.

Category: Antineoplastic.

Conventional indications: Carcinoma, gastric (treatment); Carcinoma, esophageal (treatment); Carcinoma, pancreatic (treatment); Carcinoma, anal (treatment); Carcinoma, colorectal (treatment); Carcinoma, breast (treatment); Carcinoma, head and neck (treatment); Carcinoma, biliary (treatment); Carcinoma, lung, non-small cell (treatment); Carcinoma, cervical (treatment); Carcinoma, bladder (treatment); Leukemia, chronic myelocytic (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: hair, loss of.

MOUTH: stomatitis (sores in mouth and on lips).

STOMACH: **appetite, loss of; nausea; vomiting;** *vomit, bloody*.

KIDNEYS: toxicity, renal (blood in urine; decreased urination; shortness of breath; swelling of feet or lower legs); *hemolytic-uremic syndrome* (consisting of microangiopathic hemolytic anemia [hematocrit 25% or less], irreversible renal failure, thrombocytopenia [platelet count less than 100,000], and less frequently, pulmonary hypertension, neurologic abnormalities, and hypertension).

CHEST: pneumopathy (can be severe and may be life-threatening; cough; shortness of breath).

EXTREMITIES: numbness in fingers and toes; tingling in fingers and toes.

NAILS: purple-colored bands on nails (with repeated doses).

SKIN: hair, loss of; rash; burning; cellulitis (caused by extravasation; redness or pain, especially at site of injection); *erythema, delayed; skin reaction, delayed* (red or painful skin); *stinging; ulceration, delayed*.

GENERALITIES: **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); hair, loss of; tiredness or weakness, unusual; bone marrow depression (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); *hemolytic-uremic syndrome, possible* (blood in urine, decreased urination, shortness of breath, swelling of feet or lower legs); *myelosuppression, cumulative; thrombophlebitis* (caused by extravasation; redness or pain, especially at site of injection).

DIAGNOSTIC TESTS: **leukopenia; thrombocytopenia; bone marrow depression; myelosuppression, cumulative**.

Mitotane (Systemic)

Commercial name(s): *Lysodren*.

Category: Antineoplastic; Antiadrenal.

Conventional indications: Carcinoma, adrenocortical (treatment); Cushing's syndrome (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: hypotension, orthostatic (dizziness or lightheadedness when getting up from a lying or sitting position).

EYE: opacity, lens (blurred vision); retinopathy, toxic (blurred vision).

VISION: double vision.

BLADDER: cystitis, hemorrhagic (blood in urine).

EXTREMITIES: aching muscles; twitching, muscle.

FEVER: fever.

SKIN: *flushing; redness.*

GENERALITIES: **adrenocortical insufficiency** (darkening of skin; diarrhea; dizziness; drowsiness; loss of appetite; mental depression; nausea and vomiting; skin rash; unusual tiredness); *aching muscles; flushing; hypotension, orthostatic* (dizziness or lightheadedness when getting up from a lying or sitting position); *twitching, muscle; allergic reaction* (shortness of breath; wheezing).

Mitoxantrone (Systemic)

Commercial name(s): *Novantrone.*

Category: Antineoplastic.

Conventional indications: Cancer, prostate, advanced hormone-refractory (treatment); Hepatoma (treatment); Leukemia, acute nonlymphocytic (treatment); Multiple sclerosis (treatment); Leukemia, acute lymphocytic (treatment); Carcinoma, breast (treatment); Lymphomas, non-Hodgkin's (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: hair, loss of; headache.

EYE: *blue color in whites of eyes; conjunctivitis* (sore, red eyes).

NOSE: rhinitis (stuffy, runny nose; sneezing).

FACE: stomatitis or mucositis (sores in mouth and on lips).

MOUTH: aphthosis (oral bleeding); stomatitis or mucositis (sores in mouth and on lips).

THROAT: pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; runny nose; tender, swollen glands in neck).

STOMACH: bleeding, gastrointestinal (black, tarry stools); nausea; pain; vomiting.

ABDOMEN: bleeding, gastrointestinal (black, tarry stools).

RECTUM: bleeding, gastrointestinal (black, tarry stools); constipation (rebound effect?); diarrhea.

BLADDER: infection, urinary tract.

KIDNEYS: infection, urinary tract; *failure, renal* (decrease in urination).

URINE: blue-green urine.

GENITALIA FEMALE: amenorrhea (irregular menstrual periods; stopping of menstrual bleeding); menorrhagia (longer or heavier menstrual periods).

RESPIRATION: infection, upper respiratory tract; shortness of breath.

COUGH: cough.

CHEST: *arrhythmias* (fast or irregular heartbeat); *congestive heart failure* (swelling of feet and lower legs); *cardiotoxicity* (decreased left ventricular ejection fraction, congestive heart failure, ECG changes, arrhythmias such as tachycardia, and, myocardial infarction); *infarction, myocardial; tachycardia.*

SKIN: hair, loss of; mycosis, cutaneous; *allergic reaction, possible* (skin rash).

GENERALITIES: **asthenia; hair, loss of; infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **infection, upper respiratory tract; leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *arrhythmias* (fast or irregular heartbeat); *jaundice* (yellow eyes or skin);

seizures; thrombocytopenia (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *extravasation* (blue skin at site of injection, pain or redness at site of injection; tissue necrosis); *infarction, myocardial; irritation, local* (pain or redness at site of injection); *phlebitis* (pain or redness at site of injection); *tachycardia*.

DIAGNOSTIC TESTS: *blue-green urine; leukopenia; thrombocytopenia; ECG changes; left ventricular ejection fraction decreased.*

Mivacurium (Systemic)

Commercial name(s): *Mivacron.*

Category: Neuromuscular blocking (paralyzing) agent.

Conventional indications: Skeletal muscle paralysis.

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

RESPIRATION: *bronchospasm; hypoxemia; wheezing.*

CHEST: *arrhythmia, cardiac; bradycardia; bronchospasm; tachycardia.*

EXTREMITIES: *paralysis* (neuromuscular block); *spasm, muscle.*

SKIN: *flushing; erythema; rash; urticaria.*

GENERALITIES: *paralysis* (neuromuscular block); **flushing;** *hypotension; spasm, muscle; arrhythmia, cardiac; bradycardia; histamine release* (hypotension, tachycardia, bronchospasm, and/or wheezing); *hypoxemia; injection site reaction; phlebitis; tachycardia.*

DIAGNOSTIC TESTS: *hypoxemia.*

Moclobemide (Systemic)

Commercial name(s): *Manerix.*

Category: Antidepressant.

Conventional indications: Depression, mental (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation, increased* (anxiety; nervousness; restlessness; irritability); *anxiety; nervousness; restlessness; aggressive behavior; apathy* (loss of interest in self or surroundings); *confusion; depression, increased; desire to keep moving; dysarthria* (trouble in speaking); *hallucinations* (seeing, hearing, or feeling things that are not there); *memory problems; mood or mental changes; amnesia* (loss of memory); *disorientation* (confusion); *speech, slurred.*

VERTIGO: *dizziness; hypotension, orthostatic or not* (dizziness, faintness, or lightheadedness, especially when getting up from a sitting or lying position); *balance control, loss of.*

HEAD: *headache, mild to moderate; pressure in head; headache, occipital* (severe throbbing headache which starts at the back of the head and radiates forward); *migraine* (severe headache).

EYE: *conjunctivitis* (itching, redness, and swelling of eye; feeling of something in the eye; increased sensitivity of eyes to light).

VISION: *blurred vision; changes in vision.*

HEARING: *tinnitus* (ringing or noise in ears).

FACE: *hot flushes* (feeling of warmth of the face); *movements, face, uncontrolled.*

MOUTH: *dryness; sense of taste, change in; dysarthria* (trouble in speaking); *gingivitis* (bleeding gums); *stomatitis* (irritation or soreness of mouth); speech, slurred.

EXTERNAL THROAT: *hot flushes* (feeling of warmth of the neck); *movements, neck, uncontrolled; stiffness, neck.*

STOMACH: *nausea; appetite, increased or decreased; discomfort; heartburn; indigestion; pain; vomiting; gastritis* (stomach pain or burning).

ABDOMEN: *discomfort, abdominal; pain, abdominal.*

RECTUM: *constipation; diarrhea* (rebound effect?); *tenesmus* (pain or straining to pass urine or stool).

BLADDER: *dysuria* (painful urination); *polyuria* (increase in urination); *tenesmus* (pain or straining to pass urine or stool).

GENITALIA FEMALE: *menstrual changes* (irregular or prolonged periods).

RESPIRATION: *dyspnea* (troubled breathing).

CHEST: *hot flushes* (feeling of warmth of the upper chest); *palpitations* (pounding or irregular heartbeat); *tachycardia* (fast or racing heartbeat); *angina* (chest pain); *bradycardia* (slow heartbeat).

BACK: *movements, back, uncontrolled.*

EXTREMITIES: *hot flushes* (feeling of warmth of the arms); *pain, joint or muscle; desire to keep moving; movements of body, twisting.*

SLEEP: *drowsiness; insomnia* (trouble sleeping).

DREAMS: *nightmares.*

PERSPIRATION: *increased sweating.*

SKIN: *hot flushes* (feeling of warmth of the face, neck, arms, and occasionally upper chest); *hives; itching; rash.*

GENERALITIES: *tremor* (trembling or shaking of arms or legs); *hypertension* (high blood pressure); *hypotension, orthostatic or not* (dizziness, faintness, or lightheadedness, especially when getting up from a sitting or lying position); *pain, joint or muscle; palpitations* (pounding or irregular heartbeat); *tachycardia* (fast or racing heartbeat); *tiredness or weakness, unusual; bradycardia* (slow heartbeat); *extrapyramidal effects* (difficulty in speaking; loss of balance control; restlessness or desire to keep moving; twisting movements of body; uncontrolled movements, especially of face, neck, and back); *hypertensive crisis* (bradycardia; neck stiffness; occipital headache; palpitations; tachycardia); *malaise* (general feeling of illness); *movements, uncontrolled* (especially of face, neck, and back); *movements of body, twisting; paresthesias* (burning, prickling, or tingling sensations); reflexes, decreased; seizures.

Modafinil (Systemic)

Commercial name(s): *Provigil.*

Category: Central nervous system (CNS) stimulant.

Conventional indications: Narcolepsy (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *central nervous system stimulant; anxiety; nervousness; amnesia* (problems with memory); *confusion; depression, mental; emotional lability* (rapidly changing moods); agitation; excitation; psychosis (severe mental illness, similar to schizophrenia).

VERTIGO: *dizziness; hypertension* (dizziness or fainting); *vertigo* (dizziness or lightheadedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: *headache.*

VISION: *abnormal vision; amblyopia* (blurred vision or other changes in vision); *changes in vision.*

NOSE: *epistaxis* (bloody nose); *rhinitis* (stuffy or runny nose).

FACE: *dyskinesia, oro-facial* (uncontrolled movements of the face, mouth, or tongue).

MOUTH: *dryness; dyskinesia, oro-facial* (uncontrolled movements of the face, mouth, or tongue); *taste perversion.*

THROAT: *pharyngitis* (sore throat).

STOMACH: ***nausea**; anorexia* (decrease in appetite); *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); *thirst, increased; vomiting.*

RECTUM: *constipation* (difficulty having a bowel movement [stool]); *diarrhea* (rebound effect?).

BLADDER: *retention, urinary* (trouble in urinating).

RESPIRATION: *shortness of breath.*

CHEST: *arrhythmia, cardiac* (dizziness or fainting); *pain, chest*; heart rate, increased.

BACK: *pain, back.*

EXTREMITIES: *ataxia* (clumsiness or unsteadiness); *hypertonia* (muscle stiffness).

SLEEP: ***insomnia*** (trouble in sleeping).

CHILL: *chills.*

FEVER: *fever.*

SKIN: *dryness.*

GENERALITIES: *arrhythmia, cardiac* (dizziness or fainting); *edema* (swelling); *eosinophilia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat sores; ulcers or white spots on lips or in mouth swollen glands unusual bleeding or bruising unusual tiredness or weakness); *flu syndrome* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains); *hyperglycemia* (increased thirst; increased urination); *hypertension* (dizziness or fainting); *hypertonia* (muscle stiffness); *hypotension* (dizziness or fainting) (rebound effect); *paresthesia* (tingling, burning, or prickling sensations in the skin); *tremor* (trembling or shaking); *vasodilation* (headache; flushing or redness of skin); heart rate, increased.

DIAGNOSTIC TESTS: *eosinophilia; hyperglycemia.*

Moexipril (Systemic)

Commercial name(s): *Univasc.*

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

FACE: *angioedema of the face, extremities, lips, tongue, glottis, and/or larynx* (hoarseness; sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet).

MOUTH: *dryness; taste, loss of; angioedema of the face, extremities, lips, tongue, glottis, and/or larynx* (hoarseness; sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet).

THROAT: *angioedema of the face, extremities, lips, tongue, glottis, and/or larynx* (hoarseness; sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet).

STOMACH: *nausea.*

ABDOMEN: *hepatotoxicity* (yellow eyes or skin; begins with cholestatic jaundice and progresses to fulminant hepatic necrosis and sometimes death); *pancreatitis* (bloating or pain of the stomach; fever; nausea; vomiting).

RECTUM: *diarrhea.*

KIDNEYS: *insufficiency, renal, acute, asymptomatic.*

LARYNX AND TRACHEA: *angioedema of the face, extremities, lips, tongue, glottis, and/or larynx* (hoarseness; sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet).

COUGH: *cough, dry, persistent.*

CHEST: *palpitations* (heartbeat sensations); *pain, chest.*

EXTREMITIES: *myalgia* (muscle pain); *angioedema of the face, extremities, lips, tongue, glottis, and/or larynx* (hoarseness; sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet), *edema, peripheral* (swelling of ankles, feet, or legs).

PERSPIRATION: *sweating, unusual.*

SKIN: *flushing; photosensitivity* (increased sensitivity to the sun); *pruritus* (itching); *rash.*

GENERALITIES: *hypotension* (dizziness, lightheadedness or fainting); *flushing; fatigue* (unusual tiredness); *myalgia* (muscle pain); *palpitations* (heartbeat sensations); *agranulocytosis* (chills; fever; sore throat); *anemia, hemolytic* (bleeding gums, nosebleeds, or pale skin); *depression, bone marrow; hyperkalemia* (confusion; irregular heartbeat; nervousness; numbness or tingling of hands, feet, or lips; shortness of breath or trouble breathing; weakness or heaviness of legs); *neutropenia* (chills; fever; sore throat).

DIAGNOSTIC TESTS: *agranulocytosis; depression, bone marrow; hyperkalemia; neutropenia; serum creatinine concentrations, increases in.*

Moexipril and Hydrochlorothiazide (Systemic)

Commercial name(s): *Uniretic.*

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

FACE: *angioedema of the face, extremities, lips, tongue, glottis, and/or larynx* (hoarseness; sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet).

MOUTH: *angioedema of the face, extremities, lips, tongue, glottis, and/or larynx* (hoarseness; sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet).

THROAT: *angioedema of the face, extremities, lips, tongue, glottis, and/or larynx* (hoarseness; sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet).

STOMACH: *dyspepsia* (belching; heartburn; stomach discomfort).

ABDOMEN: *pain, abdominal; hepatotoxicity* (yellow eyes or skin; begins with cholestatic jaundice and progresses to fulminant hepatic necrosis and sometimes death).

RECTUM: *constipation; diarrhea.*

GENITALIA MALE: *impotence.*

LARYNX AND TRACHEA: *angioedema of the face, extremities, lips, tongue, glottis, and/or larynx* (hoarseness; sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet).

COUGH: *cough, dry, persistent.*

CHEST: *pain, chest.*

BACK: *pain, back.*

EXTREMITIES: *edema, peripheral* (swelling of ankles, feet, or legs); *angioedema of the face, extremities, lips, tongue, glottis, and/or larynx* (hoarseness; sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet).

SLEEP: *insomnia* (trouble in sleeping).

PERSPIRATION: *sweating, unusual.*

SKIN: *rash.*

GENERALITIES: *hypotension* (lightheadedness or fainting); **fatigue**; *hypochloremia, hypokalemia, or hyponatremia* (decreased urine output; drowsiness; dryness of mouth; fast heart rate; muscle pains or cramps; muscular fatigue; nausea or vomiting; thirst; weakness); *agranulocytosis* (chills; fever; sore throat); *anaphylactoid reactions* (abnormal, high-pitched, breathing sounds; anxiety; blueness of the skin, including the lips or nail beds; confusion; generalized itching; heartbeat sensations; hives; wheezing or difficulty breathing); *anemia* (pale skin; tiredness); *hyperkalemia* (confusion; irregular heartbeat; nervousness; numbness or tingling in hands, feet, or lips; shortness of breath or difficulty breathing; weakness or heaviness of legs); *neutropenia* (chills; fever; sore throat); dehydration.

DIAGNOSTIC TESTS: *hypochloremia, hypokalemia, or hyponatremia; agranulocytosis; anemia; hyperkalemia; neutropenia.*

Molindone (Systemic)

Commercial name(s): *Moban; Moban Concentrate.*

Category: Antipsychotic.

Conventional indications: Psychotic disorders (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **akathisia** (severe restlessness or need to keep moving); depression, mental; consciousness, altered.

VERTIGO: **balance control, loss of; hypotension, orthostatic** (dizziness or lightheadedness, especially when getting up suddenly from a lying or sitting position).

HEAD: headache.

EYE: inability to move eyes.

VISION: blurred vision.

NOSE: stuffy nose.

FACE: mask-like face; spasms, muscle of face.

MOUTH: dryness; talking, difficulty in.

EXTERNAL THROAT: spasms, muscle of neck.

STOMACH: nausea.

RECTUM: constipation.

BLADDER: urination, difficult.

GENITALIA MALE: sexual ability, decreased.

GENITALIA FEMALE: menstrual periods, changes in; sexual ability, decreased.

CHEST: secretion of milk, unusual; swelling of breasts.

BACK: spasms, muscle of back.

EXTREMITIES: **akathisia** (severe restlessness or need to keep moving); **movements of body, twisting; movements, tic-like or twitching; stiffness of arms and legs; trembling and shaking of hands; walk, shuffling; weakness of arms and legs; rigidity, skeletal muscle.**

SLEEP: drowsiness.

FEVER: *heat stroke* (hot, dry skin; inability to sweat; muscle weakness; confusion); *hyperthermia; temperature regulation in the hypothalamus, central and peripheral, suppression of.*

PERSPIRATION: sweating, decreased.

SKIN: *allergic reaction* (skin rash).

GENERALITIES: **extrapyramidal effects, dystonic** (muscle spasms of face, neck, and back; tic-like or twitching movements; twisting movements of body; inability to move eyes; weakness of arms and legs); **extrapyramidal effects, parkinsonian** (difficulty in talking; loss of balance control; mask-like face; shuffling walk; stiffness of arms and legs; trembling and shaking of hands); **hypotension, orthostatic** (dizziness or lightheadedness, especially when getting up suddenly from a lying or sitting position); **movements of body, twisting; movements, tic-like or twitching; walk, shuffling; sense of well-being, false; autonomic dysfunction; heat stroke** (hot, dry skin; inability to sweat; muscle weakness;

confusion); *hepatitis* (yellow eyes or skin); *hyperthermia*; *jaundice*, *cholestatic* (yellow eyes or skin); *leukocytosis* (9500 to 26,000 cells per cubic millimeter); *neuroleptic malignant syndrome (NMS)* (convulsions; fast heartbeat; fever; high or low [irregular] blood pressure; increased sweating; loss of bladder control; severe muscle stiffness; troubled breathing; unusually pale skin; unusual tiredness); *rigidity*, *skeletal muscle*.

DIAGNOSTIC TESTS: *leukocytosis* (9500 to 26,000 cells per cubic millimeter); *liver function tests*, *elevated*; *creatine phosphokinase (CPK)*, *elevated*.

Secondary Actions or Rebound Effects: **tardive dyskinesia, persistent** (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled movements of arms and legs; uncontrolled chewing movements); *tardive dyskinesia, withdrawal-emergent* (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs); *tardive dystonia* (increased blinking or spasms of eyelid; unusual facial expressions or body positions; uncontrolled twisting movements of neck, trunk, arms, or legs).

Molybdenum Supplements (Systemic)

Commercial name(s): *Molypen*.

Category: Nutritional supplement (mineral).

Conventional indications: Molybdenum deficiency (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

GENERALITIES: hyperuricemia (joint pain; side, lower back, or stomach pain; swelling of feet or lower legs).

DIAGNOSTIC TESTS: hyperuricemia.

Mometasone (Inhalation-Local)

Commercial name(s): *Asmanex Twisthaler*.

Category: Anti-inflammatory (inhalation); Antiasthmatic.

Conventional indications: Asthma, chronic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: depression (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping).

HEAD: headache.

EAR: *earache*.

NOSE: burning and irritation, nasal; congestion, sinus (stuffy nose; headache); **rhinitis, allergic** (unexplained runny nose or sneezing); **sinusitis** (stuffy or runny nose or headache); *epistaxis* (bloody mucus or unexplained nosebleeds); *candidiasis, nasal* (white patches inside nose).

MOUTH: *candidiasis, oral* (white patches inside mouth).

THROAT: **pharyngitis** (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); dryness.

STOMACH: **dyspepsia** (stomach discomfort following meals; upset stomach); anorexia (loss of appetite; weight loss); gastroenteritis (abdominal or stomach pain; diarrhea loss of appetite; nausea; weakness); nausea; vomiting.

ABDOMEN: flatulence; gastroenteritis (abdominal or stomach pain; diarrhea loss of appetite; nausea; weakness); pain, abdominal.

BLADDER: infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

GENITALIA FEMALE: **dysmenorrhea** (increased abdominal pain and cramping during menstrual periods); menstrual disorder (menstrual changes).

RESPIRATION: **infection, upper respiratory tract** (cold or flu-like symptoms); respiratory disorder (chest congestion).

BACK: pain, back.

EXTREMITIES: **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **pain, musculoskeletal**; myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving).

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep).

SKIN: bite, insect; laceration.

GENERALITIES: **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **fatigue**; **infection, upper respiratory tract** (cold or flu-like symptoms); **pain, musculoskeletal**; **sinusitis** (stuffy or runny nose or headache); flu-like symptoms (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); infection (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); injury, accidental; myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); pain; pain, post-procedure; adrenal suppression; bone mineral density, reduced; growth suppression; hypercorticism.

DIAGNOSTIC TESTS: bone mineral density, reduced.

Secondary Actions or Rebound Effects: asthma.

Mometasone (Nasal)

Commercial name(s): *Nasonex*.

Category: Anti-inflammatory, steroidal (nasal); Corticosteroid (nasal).

Conventional indications: Polyps, nasal (treatment); Rhinitis, perennial allergic (treatment); Rhinitis, seasonal allergic (prophylaxis); Rhinitis, seasonal allergic (treatment); Sinusitis (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

EYE: *conjunctivitis* (discharge or redness in the eye, eyelid, or inner lining of eyelid); *angioedema* (large, hive-like swelling on eyelids).

EAR: *earache*.

NOSE: *epistaxis* (bloody mucus or unexplained nosebleeds); *candidiasis, nasal* (white patches inside nose); *ulcers, nasal* (sores inside nose); *perforation, nasal septal* (bloody mucus or unexplained nosebleeds); *taste and smell, disturbances of* (change in taste or smell, bad, unusual or unpleasant [after] taste or smell).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue); *candidiasis, oral* (white patches inside mouth); *taste and smell, disturbances of* (change in taste or smell, bad, unusual or unpleasant [after] taste or smell).

THROAT: *pharyngitis* (sore throat); *angioedema* (large, hive-like swelling on throat).

STOMACH: *dyspepsia* (stomach discomfort following meals; upset stomach); *nausea*.

RECTUM: *diarrhea*.

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *dysmenorrhea* (increased abdominal pain and cramping during menstrual periods); *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: *infection, upper respiratory tract* (cold or flu-like symptoms).

COUGH: cough.

CHEST: *pain, chest*.

EXTREMITIES: *pain, musculoskeletal; arthralgia* (joint or muscle ache or pain); *myalgia* (joint or muscle ache or pain); *angioedema* (large, hive-like swelling on hands, legs, feet).

GENERALITIES: *infection, upper respiratory tract* (cold or flu-like symptoms); *infections, viral; pain, musculoskeletal; sinusitis* (stuffy or runny nose or headache); *arthralgia* (joint or muscle ache or pain); *myalgia* (joint or muscle ache or pain); *anaphylaxis* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness, or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing).

Secondary Actions or Rebound Effects: *sinusitis* (stuffy or runny nose or headache); *asthma* (shortness of breath, troubled breathing, tightness in chest, or wheezing); *bronchitis* (cough); *burning; irritation; rhinitis* (runny or stuffy nose); *sneezing; wheezing*.

Monoctanoin (Local)

Commercial name(s): *Moctanin*.

Category: Cholelitholytic; Solubilizing agent (cholesterol).

Conventional indications: Gallstone disease (treatment).

Primary Actions or Pathogenetic Symptoms

FACE: *flushing; redness*.

MOUTH: *taste, metallic.*

STOMACH: *burning sensation; pain, mild to severe; appetite, loss of; nausea; vomiting.*

ABDOMEN: *burning sensation; pain, abdominal, mild to severe; irritation of the duodenal mucosa, reversible.*

RECTUM: *diarrhea.*

BACK: *pain, back, mild to severe.*

GENERALITIES: *acidosis (drowsiness, severe; nausea, continuing; shortness of breath, severe); leukopenia (chills, fever, or sore throat).*

DIAGNOSTIC TESTS: *acidosis; leukopenia.*

Montelukast (Systemic)

Commercial name(s): *Singulair.*

Category: Antiasthmatic (leukotriene receptor antagonist); Antiallergic (leukotriene receptor antagonist).

Conventional indications: Asthma, bronchial, chronic (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation (anxiety; nervousness; restlessness; irritability; dry mouth; shortness of breath; hyperventilation; trouble sleeping; irregular heartbeats; shaking); behavior, aggressive (attack; assault; force); hallucinations (seeing, hearing, or feeling things that are not there); irritability; restlessness.*

VERTIGO: *dizziness.*

HEAD: *headache.*

EYE: *angioedema (large, hive-like swelling on eyelids); mydriasis (bigger, dilated, or enlarged pupils [black part of eye]; increased sensitivity of eyes to light).*

NOSE: *congestion, nasal (stuffy nose).*

FACE: *angioedema (large, hive-like swelling on face, lips).*

MOUTH: *angioedema (large, hive-like swelling on tongue).*

TEETH: *pain, dental.*

THROAT: *angioedema (large, hive-like swelling on throat).*

STOMACH: *dyspepsia (heartburn); gastroenteritis, infectious (abdominal or stomach pain); pain; nausea; vomiting; thirst.*

ABDOMEN: *gastroenteritis, infectious (abdominal or stomach pain); pain, abdominal; eosinophilic infiltration, hepatic (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); pancreatitis (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).*

RECTUM: *diarrhea.*

URINE: *pyuria (pus in the urine).*

GENITALIA MALE: *angioedema (large, hive-like swelling on sex organs).*

GENITALIA FEMALE: *angioedema (large, hive-like swelling on sex organs).*

COUGH: *cough.*

CHEST: *cardiac complications; palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); *pulmonary symptoms, worsening of*.

EXTREMITIES: *angioedema* (large, hive-like swelling on hands, legs, feet); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving).

SLEEP: *drowsiness* (sleepiness); *insomnia* (sleeplessness; trouble sleeping; unable to sleep); *somnolence* (sleepiness or unusual drowsiness).

DREAMS: *dream abnormalities*.

FEVER: *fever*.

SKIN: *rash; pruritus* (itching skin); *rash, vasculitic; urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *asthenia* (weakness or unusual tiredness); *fatigue* (weakness or unusual tiredness); *anaphylaxis* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *bleeding tendency, increased; bruising* (large, flat, blue or purplish patches in the skin); *edema* (swelling); *eosinophilia* (sometimes presenting with the clinical features of vasculitis consistent with Churg-Strauss syndrome); *hepatitis, cholestatic* (abdominal or stomach pain; chills; clay-colored stools; dark urine; diarrhea; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *neuropathy; palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); *paraesthesia/hypoesthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *seizures* (convulsions, muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); *hyperkinesia* (increase in body movements).

DIAGNOSTIC TESTS: *hepatic enzymes, elevated* (include alanine aminotransferase ALT [SGPT] and aspartate aminotransferase AST [SGOT]; asymptomatic); *eosinophilia; pyuria*.

Moricizine (Systemic)

Commercial name(s): *Ethmozine*.

Category: Antiarrhythmic.

Conventional indications: Arrhythmias, ventricular (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness*; coma; lethargy.

VERTIGO: *dizziness*; syncope.

HEAD: *headache*.

VISION: *blurred vision*.

MOUTH: *dryness*.

STOMACH: *nausea; pain; vomiting*.

ABDOMEN: *hepatotoxicity* (not symptomatic).

RECTUM: diarrhea.

RESPIRATION: failure, respiratory.

CHEST: congestive heart failure (shortness of breath; swelling of feet or lower legs); pain, chest; arrest, cardiac, non-fatal; block, atrioventricular (AV), second or third degree; bradycardia, sinus; sinus pause; arrest, sinus; congestive heart failure, exacerbation of; infarction, myocardial.

EXTREMITIES: pain in arms or legs.

SLEEP: trouble in sleeping.

FEVER: fever, drug (sudden high fever).

GENERALITIES: hypesthesias or paresthesias (numbness or tingling in arms or legs or around mouth); tiredness or weakness, unusual; bradycardia, sinus; mortality, excessive; sinus pause; coma; conduction disturbances; death; hypotension; infarction, myocardial.

Secondary Actions or Rebound Effects: tachyarrhythmias, ventricular, potentially fatal (fast or irregular heartbeat); arrhythmias, ventricular, new or exacerbated; proarrhythmic effects; arrhythmias (including junctional bradycardia, ventricular tachycardia, ventricular fibrillation, and asystole).

Moxifloxacin (Ophthalmic)

Commercial name(s): *Vigamox*.

Category: Antibacterial (ophthalmic).

Conventional indications: Bacterial conjunctivitis (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: conjunctivitis (redness; pain; swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing); **discomfort, ocular** (pain in eye); **dryness**; **hemorrhage, subconjunctival** (decreased vision or any change in vision); **hyperemia, ocular** (redness of eye); **keratitis** (eye redness, irritation, or pain); **pain, ocular**; **pruritus, ocular** (itching of the eye); **tearing**.

VISION: **visual acuity, decreased** (decreased vision).

EAR: otitis media (decreased hearing; fever; general body discomfort; rubbing or pulling of the ears (in children); and vomiting and diarrhea (in infants); sore throat).

NOSE: rhinitis (runny nose).

THROAT: pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

COUGH: cough, increased.

FEVER: fever.

SKIN: rash.

GENERALITIES: infection (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); hypersensitivity (anaphylactic) reactions, serious and occasionally fatal reactions (fainting or loss of consciousness; fast or irregular breathing; swelling of eyes or eyelids; trouble in breathing; tightness in chest, and/or wheezing; skin

rash; itching; cardiovascular collapse, loss of consciousness, angioedema (including laryngeal, pharyngeal or facial edema), airway obstruction, dyspnea, urticaria).

Mumps Virus Vaccine Live (Systemic)

Commercial name(s): *Mumpsvox.*

Category: Immunizing agent (active).

Conventional indications: Mumps (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: *encephalitis or meningoencephalitis* (confusion; severe or continuing headache; irritability; stiff neck; or vomiting).

FACE: *parotitis* (swollen glands on side of face or neck).

GENTALIA MALE: *orchitis in postpubescent and adult males* (pain, tenderness, or swelling in testicles and scrotum).

FEVER: *fever of 37.7° C (100° F) or less; fever over 39.4° C (103° F).*

SKIN: *rash; purpura, thrombocytopenic* (bruising or purple spots on skin).

GENERALITIES: *burning or stinging at injection site; allergic reaction, cell-mediated, delayed-type* (itching, swelling, redness, tenderness or hard lump at place of injection); *anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of feet or hands; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *purpura, thrombocytopenic* (bruising or purple spots on skin).

Mupirocin (Nasal)

Commercial name(s): *Bactroban Nasal.*

Category: Antibacterial (nasal).

Conventional indications: *Staphylococcus aureus*, methicillin-resistant (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

EAR: *pain, ear.*

NOSE: *burning in the nose; pruritus* (itching); *rhinitis* (stuffy or runny nose); *stinging in the nose.*

MOUTH: *taste perversion* (change in taste).

THROAT: *pharyngitis* (sore throat).

RESPIRATION: *respiratory disorder, including upper respiratory tract congestion* (chest congestion).

COUGH: *cough.*

Mupirocin (Topical)

Commercial name(s): *Bactroban*.

Category: Antibacterial (topical).

Conventional indications: Impetigo (treatment) [Mupirocin ointment]; Eczema, infected (treatment); Folliculitis (treatment); Skin infections, bacterial, minor (prophylaxis); Skin lesions, secondarily infected, traumatic (treatment) [Mupirocin cream].

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

MOUTH: *stomatitis, ulcerative* (sores in mouth or on lips).

STOMACH: *nausea*.

ABDOMEN: *pain, abdominal*.

KIDNEYS: *toxicity, renal, serious* (when mupirocin ointment is applied to extensive open wounds or burns, the possibility of absorption of the polyethylene glycol vehicle).

SKIN: *dryness; burning; itching; pain; rash; redness; stinging; swelling*.

GENERALITIES: *infection, secondary wound*.

Muromonab-CD3 (Systemic)

Commercial name(s): *Orthoclone OKT3*.

Category: Monoclonal antibody; Immunosuppressant.

Conventional indications: Transplant rejection, organ (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache*.

VISION: *impaired vision*.

HEARING: *loss, hearing*.

STOMACH: *vomiting*.

RECTUM: *diarrhea*.

BLADDER: *urine output, diminished*.

KIDNEYS: *glomerular filtration, decline in the*; failure, renal (greatly increased or decreased frequency of urination or amount of urine; increased thirst; loss of appetite; nausea; vomiting).

RESPIRATION: *edema, pulmonary* (shortness of breath).

EXTREMITIES: *edema* (swelling in feet and/or legs); *myalgia* (muscle pain).

CHILL: *chills*.

FEVER: *fever*.

GENERALITIES: *immunosuppression; cytokine release syndrome, mild to severe* (chest pain; rapid or irregular heartbeat; shortness of breath or wheezing; trembling and shaking of hands; weakness; diarrhea; dizziness or faintness; fever and chills; headache; malaise [general feeling of discomfort or illness]; muscle or joint pain; nausea and vomiting; tachypnea; respiratory distress, failure, or arrest; cardiovascular collapse; cardiac arrest; myocardial infarction; tachycardia; hypertension; hemodynamic instability; hypotension including profound shock; heart failure; cardiogenic and noncardiogenic

pulmonary edema; adult respiratory distress syndrome; hypoxemia; apnea; and arrhythmias); anaphylaxis, serious and occasionally fatal (rapid or irregular heartbeat; shortness of breath or wheezing; swelling of face or throat; cardiovascular collapse, cardiorespiratory arrest, loss of consciousness, hypotension/shock, tachycardia, tingling, angioedema (including laryngeal, pharyngeal, or facial edema), airway obstruction, bronchospasm, dyspnea, urticaria, and pruritus); anemia, aplastic (shortness of breath, troubled breathing, wheezing, or tightness in chest; sores, ulcers, or white spots on lips or in mouth; swollen or painful glands; unusual bleeding or bruising); aseptic meningitis syndrome (fever; headache; stiff neck; unusual sensitivity of eyes to light; and seizures); encephalopathy (confusion; hallucinations; unusual tiredness; coma); hypersensitivity (itching or tingling; skin rash); neutropenia (usually asymptomatic; rarely, fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); seizures; thrombocytopenia (usually asymptomatic; rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); antibodies, neutralizing, development of; infection (fever and chills); leukocytosis in cerebrospinal fluid; myalgia (muscle pain).

DIAGNOSTIC TESTS: anemia, aplastic; neutropenia; thrombocytopenia; antibodies, neutralizing, development of; leukocytosis in cerebrospinal fluid; protein in cerebrospinal fluid, elevated; reduced glucose concentrations in cerebrospinal fluid; serum creatinine concentration, increase in the.

Mycophenolate (Systemic)

Commercial name(s): *CellCept*.

Category: Immunosuppressant.

Conventional indications: Transplant rejection, organ (prophylaxis); Lupus nephritis (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache; meningitis (severe headache; drowsiness; confusion; stiff neck and/or back; general feeling of illness or nausea).

MOUTH: gingivitis (red, inflamed, bleeding gums); hyperplasia, gingival (enlarged gums); moniliasis, oral (white patches on mouth, tongue, or throat); stomatitis (sores inside mouth).

THROAT: moniliasis, oral (white patches on mouth, tongue, or throat).

STOMACH: dyspepsia (heartburn); **nausea**; **pain**; **vomiting**; hemorrhage, gastrointestinal (bloody vomit).

ABDOMEN: **pain, abdominal**; colitis (abdominal pain); hemorrhage, gastrointestinal (bloody vomit); pancreatitis (abdominal pain); atrophy, villous, intestinal (abdominal pain; abdominal distention; chronic or occasional diarrhea; stools that float, are foul smelling or “fatty”).

RECTUM: **constipation**; **diarrhea**; hemorrhage, gastrointestinal (bloody vomit).

URINE: **hematuria** (blood in urine).

RESPIRATION: **dyspnea** (shortness of breath); *failure, respiratory* (blue lips, fingernails, or skin; difficult or troubled breathing; irregular, fast or slow, or shallow breathing; shortness of breath).

COUGH: **cough, increased.**

CHEST: **pain, chest;** *arrhythmia* (irregular heartbeat); *endocarditis, infectious* (chest pain or discomfort; chills; fever; heart murmur; shortness of breath); *fibrosis, pulmonary* (fever; cough; shortness of breath); *lung disorder, interstitial* (cough; difficult breathing; fever; shortness of breath).

EXTREMITIES: **edema, peripheral** (swelling of feet or lower legs); *arthralgia* (joint pain); *myalgia* (muscle pain); *tremor* (trembling or shaking of hands or feet).

SLEEP: *insomnia* (trouble in sleeping).

SKIN: *acne; rash.*

GENERALITIES: *immunosuppression; anemia; hypertension; infection* (fever or chills, cough or hoarseness, lower back or side pain, painful or difficult urination); **leukopenia (neutropenia)** (fever or chills, cough or hoarseness, lower back or side pain, painful or difficult urination); **weakness;** *arrhythmia* (irregular heartbeat); *arthralgia* (joint pain); *myalgia* (muscle pain); *neutropenia, severe; thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *infection, mycobacterial, atypical* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *sepsis; tuberculosis* (chest pain; cough; coughing or spitting up blood; difficulty in breathing; sore throat; muscle aches; night sweats; sudden high fever or low-grade fever for months; unusual tiredness).

DIAGNOSTIC TESTS: **hematuria.**

Nabilone (Systemic)

Commercial name(s): *Cesamet*.

Category: Antiemetic.

Conventional indications: Nausea and vomiting, cancer chemotherapy-induced (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: **euphoria** (false sense of well-being); *psychiatric effects* (changes in mood; confusion; delusions; hallucinations; mental depression; nervousness or anxiety); anxiety reactions, severe (severe nervousness or anxiety); coma; hallucinations (seeing, hearing, or feeling things that are not there); psychotic episodes (severe mental changes).

VERTIGO: **dizziness**; *hypotension, orthostatic* (dizziness or lightheadedness, especially when getting up from a lying or sitting position).

HEAD: **headache**.

VISION: *blurred vision; changes in vision*.

MOUTH: **dryness**.

STOMACH: *anorexia* (loss of appetite).

RESPIRATION: depression, respiratory (difficulty in breathing).

CHEST: *tachycardia* (fast or pounding heartbeat).

EXTREMITIES: **ataxia** (clumsiness or unsteadiness).

SLEEP: **drowsiness**.

GENERALITIES: *hypotension, orthostatic* (dizziness or lightheadedness, especially when getting up from a lying or sitting position); *asthenia* (unusual tiredness or weakness, severe); *hypotension* (dizziness or fainting); *seizures*; *tachycardia* (fast or pounding heartbeat); coma.

Nadroparin (Systemic)

Commercial name(s): *Fraxiparine; Fraxiparine Forte*.

Category: Anticoagulant; Antithrombotic.

Conventional indications: Angina, unstable (treatment); Myocardial infarction, non-Q wave (treatment); Thromboembolism, pulmonary (prophylaxis); Thrombosis, deep venous (prophylaxis); Thrombosis, deep venous (treatment); Thrombosis during hemodialysis (prophylaxis).

Primary Actions or Pathogenetic Symptoms

NOSE: *epistaxis* (nosebleed).

RECTUM: *melena* (black, tarry stools; vomiting of blood or coffee ground-like material).

STOOL: *melena* (black, tarry stools; vomiting of blood or coffee ground-like material).

URINE: *hematuria* (blood in the urine).

BACK: *hematoma, intraspinal* (back pain; bladder or bowel dysfunction; leg weakness; numbness; paralysis; paresthesias) (observed during concurrent use of low molecular weight heparin and epidural or spinal anesthesia).

EXTREMITIES: *osteoporosis, risk of*.

SKIN: *necrosis, cutaneous* (blue-green to black skin discoloration; pain, redness, or sloughing of skin at place of injection); *purpura* (small purple or red spots on mucous membranes or skin); *rash*.

GENERALITIES: *bleeding, hemorrhage; hematoma, injection site* (deep, dark purple bruise, pain, or swelling at place of injection); *allergic reaction* (fever; hives; itching; skin rash); *anaphylactoid reaction* (bluish discoloration, flushing, or redness of skin; coughing; difficulty in swallowing; dizziness or feeling faint; skin rash, hives, or itching; swelling of eyelids, face, or lips; tightness in chest, troubled breathing, and/or wheezing); *bruising, unexpected; hematoma, intraspinal* (back pain; bladder or bowel dysfunction; leg weakness; numbness; paralysis; paresthesias) (observed during concurrent use of low molecular weight heparin and epidural or spinal anesthesia); *osteoporosis, risk of; thrombocytopenia* (bleeding from mucous membranes; rash consisting of pinpoint, purple-red spots, often beginning on the legs; unusual bruising).

DIAGNOSTIC TESTS: *hematuria; thrombocytopenia*.

Nafarelin (Systemic)

Commercial name(s): *Synarel*.

Category: Gonadotropin-releasing hormone analog; Gonadotropin inhibitor; Antiendometriotic agent.

Conventional indications: Endometriosis (treatment); Puberty, central precocious (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *emotional lability* (mood swings) (for female patients treated for endometriosis and for male or female patients treated for central precocious puberty); *depression, mental, mild and transient* (for female patients treated for endometriosis).

HEAD: *hirsutism* (increased hair growth, often abnormally distributed) (for female patients treated for endometriosis); *seborrhea* (dandruff; oily skin) (for female patients treated for endometriosis and for male or female patients treated for central precocious puberty); *headache, mild and transient* (for female patients treated for endometriosis); *adenoma, pituitary; enlargement and asymmetry, pituitary*.

EYE: *pain, eye* (for female patients treated for endometriosis).

NOSE: *rhinitis* (irritated or runny nose) (for female patients treated for endometriosis and for male or female patients treated for central precocious puberty).

GENITALIA MALE: *pubic hair, growth of* (for male or female patients treated for central precocious puberty).

GENITALIA FEMALE: *gonadotropin inhibitor; amenorrhea* (stopping of menstrual periods) (for female patients treated for endometriosis); *bleeding, breakthrough* (vaginal bleeding between regular menstrual periods) (for female patients treated for endometriosis or central precocious puberty); *bleeding patterns, uterine, changes in* (breakthrough bleeding, menorrhagia, spotting) (for female patients treated for endometriosis or central precocious puberty); *libido, increased or decreased* (increase or decrease in sexual desire) (for female patients treated for endometriosis); *menorrhagia* (longer or heavier menstrual

periods) (for female patients treated for endometriosis or central precocious puberty); **pubic hair, growth of** (for male or female patients treated for central precocious puberty); **spotting** (light vaginal bleeding between regular menstrual periods) (for female patients treated for endometriosis or central precocious puberty); cysts, ovarian (for female patients treated for endometriosis); discharge, vaginal (white or brownish vaginal discharge) (for female patients treated for central precocious puberty); enlargement, ovarian (for female patients treated for endometriosis); hyperstimulation, ovarian, mild (pelvic bloating or tenderness) (for female patients treated for endometriosis).

CHEST: enlargement, breast (for female patients treated for endometriosis or central precocious puberty); galactorrhea (unexpected or excess milk flow from breasts) (for female patients treated for endometriosis); mastalgia (breast pain) (for female patients treated for endometriosis); palpitations (fast or irregular heartbeat) (for female patients treated for endometriosis).

EXTREMITIES: bone mineral density, loss of (for female patients treated for endometriosis); **edema** (rapid weight gain; swelling of feet or lower legs) (for female patients treated for endometriosis); **myalgia** (muscle pain) (for female patients treated for endometriosis); arthralgia (joint pain) (for female patients treated for endometriosis).

PERSPIRATION: odor, body (for male or female patients treated for central precocious puberty).

SKIN: acne (for female patients treated for endometriosis and for male or female patients treated for central precocious puberty); **hirsutism** (increased hair growth, often abnormally distributed) (for female patients treated for endometriosis); **seborrhea** (dandruff; oily skin) (for female patients treated for endometriosis and for male or female patients treated for central precocious puberty); chloasma (patchy brown or dark brown discoloration of skin) (for female patients treated for endometriosis); rash, maculopapular (skin rash) (for female patients treated for endometriosis).

GENERALITIES: gonadotropin inhibitor; bone mineral density, loss of (for female patients treated for endometriosis); **edema** (rapid weight gain; swelling of feet or lower legs) (for female patients treated for endometriosis); **hypoestrogenism** (dyspareunia; reduced breast size; vaginal dryness; oily skin) (for female patients treated for endometriosis); **hirsutism** (increased hair growth, often abnormally distributed) (for female patients treated for endometriosis); **hot flashes** (for female patients treated for endometriosis or central precocious puberty); **myalgia** (muscle pain) (for female patients treated for endometriosis); anaphylaxis or hypersensitivity reaction, immediate (shortness of breath; chest pain; hives) (for female patients treated for endometriosis and for male or female patients treated for central precocious puberty); asthenia (unusual tiredness or weakness) (for female patients treated for endometriosis); palpitations (fast or irregular heartbeat) (for female patients treated for endometriosis); paresthesia (numbness or tingling of hands or feet) (for female patients treated for endometriosis).

DIAGNOSTIC TESTS: hypoestrogenism.

Naftifine (Topical)

Commercial name(s): *Naftin.*

Category: Antifungal (topical).

Conventional indications: Tinea corporis (treatment); Tinea cruris (treatment); Tinea pedis (treatment); Tinea barbae (treatment); Tinea capitis (treatment) Tinea versicolor (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: burning feeling on treated area(s); stinging feeling on treated area(s); *dryness*; *irritation not present before therapy*; *itching*; *redness*.

Nalidixic Acid (Systemic)

Commercial name(s): NegGram.

Category: Antibacterial (systemic).

Conventional indications: Urinary tract infections, bacterial (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion*; *restlessness*; *hallucinations*; *mood or mental changes*; lethargy (unusual tiredness or weakness, extreme); psychosis, toxic (hallucinations; aggressive and violent behavior).

VERTIGO: *dizziness*; *feeling of constant movement of self or surroundings*; *lightheadedness*.

HEAD: *headache*; *pressure, intracranial, increased* (bulging of fontanel [soft spot] on top of head of an infant; visual changes; headache, severe).

EYE: *angioedema* (large, hive-like swelling on eyelids); *palsy, sixth cranial nerve*.

VISION: *visual disturbances* (blurred or decreased vision; change in color vision; double vision; halos around lights; overbright appearance of lights).

FACE: *angioedema* (large, hive-like swelling on face, lips); *palsy, sixth cranial nerve*.

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

STOMACH: *disturbance, gastrointestinal* (abdominal pain; diarrhea; nausea; vomiting); *nausea; vomiting*.

ABDOMEN: *disturbance, gastrointestinal* (abdominal pain; diarrhea; nausea; vomiting); *cholestasis*; *colitis, pseudomembranous* (abdominal or stomach cramps or pain, severe; diarrhea, watery and severe, which may also be bloody; fever); *overgrowth of clostridia*.

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

EXTREMITIES: *angioedema* (large, hive-like swelling on hands, legs, feet); *arthralgia* (pain in joints, muscle pain or stiffness; difficulty in moving); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet; unsteadiness or awkwardness); *tendon effects* (bone pain; lower back or side pain; painful, swollen joints).

SLEEP: *drowsiness*.

SKIN: *rash*; *photosensitivity* (increased sensitivity of skin to sunlight); *bullae*; *erythema*; *erythema multiforme* (fever; general feeling of discomfort or illness; red skin lesions, often

with a purple center); *pruritus* (itching skin); *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: **toxicity,** **CNS** (dizziness; feeling of constant movement of self or surroundings; drowsiness; headache; weakness); **weakness;** *stimulation, central nervous system (CNS)* (confusion; lightheadedness; restlessness; tremor); *tremor;* *acidosis, metabolic* (increased frequency of breathing; nausea or vomiting; unusual tiredness); *anaphylactoid reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *anemia, hemolytic* (chills; pale skin; sore throat and fever; unusual bleeding or bruising; unusual tiredness or weakness); *arthralgia* (pain in joints, muscle pain or stiffness; difficulty in moving); *eosinophilia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *erythema multiforme* (fever; general feeling of discomfort or illness; red skin lesions, often with a purple center); *hypersensitivity* (skin rash, itching, or hives; sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet; hoarseness; joint pain, stiffness, or swelling; shortness of breath; changes in facial skin color); *jaundice, cholestatic* (dark or amber urine; pale stools; stomach pain, severe; yellow eyes or skin); *leukopenia* (chills; pale skin; sore throat and fever; unusual bleeding or bruising; unusual tiredness or weakness); *palsy, sixth cranial nerve;* *paresthesia* (burning or tingling skin sensation); *seizures;* *Stevens-Johnson syndrome* (blistering, peeling, or loosening of skin and mucous membranes; fever; general feeling of discomfort or illness); *tendon effects* (bone pain; lower back or side pain; painful, swollen joints); *thrombocytopenia* (chills; pale skin; sore throat and fever; unusual bleeding or bruising; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *acidosis, metabolic; anemia, hemolytic; eosinophilia; leukopenia; thrombocytopenia.*

Nalmefene (Systemic)

Commercial name(s): *Revex.*

Category: Opioid (narcotic) antagonist.

Conventional indications: Opioid (narcotic) overdose (treatment); Opioid depression, postoperative (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation; confusion; hallucinations* (seeing, hearing, or feeling things that are not there).

VERTIGO: *dizziness.*

HEAD: *headache.*

THROAT: *pharyngitis* (sore throat).

STOMACH: *nausea; vomiting.*

BLADDER: *retention, urinary* (difficult urination).

CHEST: *tachycardia* (fast heartbeat); *arrhythmia* (irregular heartbeat); *bradycardia* (slow heartbeat).

EXTREMITIES: *myoclonus* (rhythmic movement of muscles).

CHILL: *chills*.

FEVER: *fever*.

SKIN: *pruritus* (itching).

GENERALITIES: *hypertension*; *pain*, *postoperative*; *tachycardia* (fast heartbeat); *vasodilatation*; *arrhythmia* (irregular heartbeat); *bradycardia* (slow heartbeat); *myoclonus* (rhythmic movement of muscles).

Naloxone (Systemic)

Commercial name(s): *Narcan*.

Category: Opioid (narcotic) antagonist.

Conventional indications: Toxicity, opioid (narcotic) (diagnosis); Toxicity, opioid (narcotic) (treatment); Respiratory depression, opioid (narcotic)-induced (treatment); Shock, septic (treatment adjunct); Opioid dependence (diagnosis).

Primary Actions or Pathogenetic Symptoms

MIND: *behavior, violent*; *crying, excessive* (in neonates); *excitement*; *irritability*; *nervousness*; *restlessness*.

NOSE: *runny nose*; *sneezing*.

STOMACH: *cramps*; *nausea*; *vomiting*.

RECTUM: *diarrhea*.

CHEST: *arrhythmia, ventricular*; *edema, pulmonary*; *heartbeat, fast or irregular*; *tachycardia*.

SLEEP: *yawning, increased*.

CHILL: *shivering*.

FEVER: *fever*.

PERSPIRATION: *sweating, increased*.

SKIN: *gooseflesh*.

GENERALITIES: *aches, body*; *arrhythmia, ventricular*; *blood pressure, increased or decreased*; *convulsions*; *heartbeat, fast or irregular*; *reflexes, hyperactive* (in neonates); *tachycardia*; *trembling*; *tremors* (in neonates); *weakness*.

Secondary Actions or Rebound Effects: many of the described symptoms may be rebound effects, in view of the abrupt withdrawal of opioid action. (Author's note)

Naltrexone (Systemic)

Commercial name(s): *ReVia*.

Category: Opioid (narcotic) antagonist; Opioid (narcotic) abuse therapy adjunct; Alcohol abuse therapy adjunct.

Conventional indications: Opioid (narcotic) drug use, illicit (treatment adjunct); Alcoholism (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: anxiety; nervousness; restlessness; irritability; confusion; depression, mental; hallucinations; mood or mental changes.

VERTIGO: dizziness.

HEAD: headache.

EYE: aching eyes; burning; swollen eyes.

VISION: blurred vision.

HEARING: ringing or buzzing.

NOSE: runny nose; sinus problems; sneezing; stuffy nose.

THROAT: hoarseness; soreness.

STOMACH: nausea; vomiting; appetite, loss of; thirst, increased; ulceration, gastrointestinal (abdominal or stomach pain, severe).

ABDOMEN: cramping, abdominal, mild to moderate; pain, abdominal, mild to moderate; ulceration, gastrointestinal (abdominal or stomach pain, severe).

RECTUM: constipation; diarrhea.

BLADDER: discomfort while urinating; frequent urination.

GENITALIA MALE: sexual problems in males.

RESPIRATION: shortness of breath.

COUGH: cough.

CHEST: heartbeat, fast or pounding; pain, chest.

EXTREMITIES: pain, joint or muscle; edema (swelling of face, fingers, feet, or lower legs; weight gain).

SLEEP: trouble in sleeping.

CHILL: chills.

FEVER: fever.

SKIN: rash; itching.

GENERALITIES: pain, joint or muscle; tiredness, unusual; heartbeat, fast or pounding; sinus problems; edema (swelling of face, fingers, feet, or lower legs; weight gain); blood pressure, increased.

Secondary Actions or Rebound Effects: in patients physically dependent on opioid drugs: anxiety; appetite, loss of; cramps, abdominal or stomach; diarrhea; fever; gooseflesh; heartbeat, fast; irritability; nausea; nervousness; pain, joint or muscle; restlessness; runny nose, continuing; shivering; sneezing; sweating, increased; trembling; trouble in sleeping; vomiting; weakness; yawning, increased.

Naphazoline (Ophthalmic)

Commercial name(s): Ak-Con; Albalon; Albalon Liquifilm; Allertest; Allergy Drops; Clear Eyes Lubricating Eye Redness Reliever; Comfort Eye Drops; Degest 2; Estivin II; I-

Naphline; Muro's Opcon; Nafazair; Naphcon; Naphcon Forte; Ocu-Zoline Sterile Ophthalmic Solution; VasoClear; VasoClear A; Vasocon; Vasocon Regular.

Category: Decongestant (ophthalmic).

Conventional indications: Ocular redness (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness.*

VERTIGO: *dizziness.*

HEAD: *headache.*

EYE: *large pupils; hyperemia, reactive (increase in eye irritation); irritation of the conjunctiva, increased (prolonged use); pigment granules, liberation of, presumably from the iris.*

VISION: *blurred vision.*

STOMACH: *nausea.*

CHEST: *heartbeat, slow.*

SLEEP: *drowsiness.*

FEVER: *body temperature, decrease in.*

PERSPIRATION: *sweating, increased.*

GENERALITIES: *weakness; body temperature, decrease in; heartbeat, slow.*

Naratriptan (Systemic)

Commercial name(s): *Amerge.*

Category: Antimigraine agent.

Conventional indications: Headache, migraine (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; agitation; confusion; hallucinations; mood or mental changes; panic disorders; restlessness.*

VERTIGO: *dizziness; syncope (fainting); lightheadedness.*

EYE: *discomfort; dryness; pain.*

VISION: *blurred vision.*

MOUTH: *taste perversion (change in taste sensation).*

THROAT: *heaviness in throat; pressure in throat; tightness in throat.*

EXTERNAL THROAT: *heaviness in neck; pressure in neck; tightness in neck; tension in neck.*

STOMACH: *nausea; vomiting; discomfort; gastroenteritis (diarrhea; nausea; stomach pain); pain; thirst, increased.*

ABDOMEN: *gastroenteritis (diarrhea; nausea; stomach pain).*

RECTUM: *constipation; diarrhea.*

BLADDER: *polyuria (sudden, large increase in frequency and quantity of urine).*

CHEST: *heaviness in chest; pain, chest, severe; pressure in chest; tightness in chest; arrhythmias (irregular heartbeat); bradycardia (slow heartbeat); palpitations (pounding heartbeat).*

EXTREMITIES: arthralgia (joint pain); pain, muscle; rigidity, muscles or joint; spasms, muscle; stiffness, muscle or joint; tightness, muscle or joint; tremors (trembling or shaking of hands or feet); pain, bone or skeletal; coordination, loss of.

SLEEP: **drowsiness**; sleep disorders (difficulty sleeping).

CHILL: chills.

FEVER: fever.

SKIN: pruritus (itching of the skin); rash; acne.

GENERALITIES: **malaise** (increased tiredness); **paresthesias** (sensation of burning, warmth or heat, numbness, tightness, or tingling); arrhythmias (irregular heartbeat); arthralgia (joint pain); blood pressure, decreased or increased; bradycardia (slow heartbeat); convulsions; pain, muscle; palpitations (pounding heartbeat); rigidity, muscles or joint; spasms, muscle; stiffness, muscle or joint; tightness, muscle or joint; anemia (unusual tiredness or weakness); fluid imbalance; pain, bone or skeletal; tiredness.

DIAGNOSTIC TESTS: fluid imbalance.

Natalizumab (Systemic)

Commercial name(s): *Tysabri*.

Category: Multiple sclerosis (MS) therapy agent; Biologic response modifier.

Conventional indications: Multiple sclerosis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **depression** (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); suicidal ideation (thoughts of killing oneself; changes in behavior).

VERTIGO: syncope (fainting); dizziness.

HEAD: **headache**.

MOUTH: **tonsillitis** (congestion, fever, sore throat, swollen glands).

STOMACH: **discomfort, abdominal** (stomach soreness or discomfort); **gastroenteritis** (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness).

ABDOMEN: **discomfort, abdominal** (stomach soreness or discomfort); **gastroenteritis** (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); cholelithiasis (abdominal fullness; gaseous abdominal pain; recurrent fever; yellow eyes or skin).

BLADDER: **frequency, urinary** (increased need to urinate; passing urine more often); **infection, urinary tract** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); **urgency, urinary** (frequent strong or increased urge to urinate).

KIDNEYS: **infection, urinary tract** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

GENITALIA FEMALE: **dysmenorrhea** (pain; cramps; heavy bleeding); **menstruation, irregular**; **vaginitis** (itching of the vagina or genital area; pain during sexual intercourse; thick, white vaginal discharge with no odor or with a mild odor); amenorrhea (absent, missed, or irregular menstrual periods; stopping of menstrual bleeding).

RESPIRATION: infection, upper respiratory tract (cough; fever; sneezing; sore throat); *dyspnea* (shortness of breath, difficult or labored breathing; tightness in chest; wheezing); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

CHEST: *discomfort, chest; pain, chest; pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

EXTREMITIES: arthralgia (pain in joints; muscle pain or stiffness; difficulty in moving); *tremor* (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet).

CHILL: *rigors* (feeling unusually cold; shivering).

FEVER: *fever*.

SKIN: dermatitis (blistering, crusting, irritation, itching, or reddening of skin; cracked, dry, scaly skin; swelling); *flushing; pruritus* (itching skin); *rash; urticaria* (hives or welts; itching redness of skin; skin rash).

GENERALITIES: allergic reaction (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **fatigue** (unusual tiredness or weakness); **immunogenicity** (body produces substance that can bind to drug making it less effective or cause side effects); *bleeding, local; anaphylaxis/ anaphylactoid reactions* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *flushing; hypotension* (blurred vision; confusion; dizziness; faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); *leukoencephalopathy, progressive multifocal (PML)* (back pain; blurred vision; confusion; convulsions; dizziness; drowsiness; fever; headache; unusual tiredness or weakness)

DIAGNOSTIC TESTS: liver function test, abnormal (lab results that show problems with liver); *cholelithiasis*.

Natamycin (Ophthalmic)

Commercial name(s): *Natacyn*.

Category: Antifungal (ophthalmic).

Conventional indications: Blepharitis, fungal (treatment); Conjunctivitis, fungal (treatment); Keratitis, fungal (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *chemosis, conjunctival* (eye irritation, redness, or swelling not present before therapy); *hyperemia, conjunctival* (eye irritation, redness, or swelling not present before therapy).

Nateglinide (Systemic)

Commercial name(s): *Starlix*.

Category: Antidiabetic agent.

Conventional indications: Diabetes, type 2 (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

RESPIRATION: **infection, upper respiratory** (cough; runny or stuffy nose; sore throat).

BACK: *pain, back*.

EXTREMITIES: *arthropathy* (joint pain; swelling in joints).

SKIN: *itching; rash; urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *hypoglycemia* (anxiety; behavior change similar to drunkenness; blurred vision; cold sweats; coma; confusion; cool, pale skin; difficulty in concentrating; drowsiness; excessive hunger; fast heartbeat; headache; nausea; nervousness; nightmares; restless sleep; seizures; shakiness; slurred speech; unusual tiredness or weakness); **infection, upper respiratory** (cough; runny or stuffy nose; sore throat); *arthropathy* (joint pain; swelling in joints); *flu symptoms* (abdominal pain; chills; cough; headache; pain in joints or muscles; runny nose; sneezing; sore throat).

DIAGNOSTIC TESTS: *hypoglycemia*.

Nedocromil (Inhalation-Local)

Commercial name(s): *Tilade*.

Category: Anti-inflammatory, nonsteroidal (inhalation); Asthma prophylactic; Antiallergic (inhalation).

Conventional indications: Asthma, bronchial (prophylaxis); Bronchospasm (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache*.

NOSE: *rhinitis* (runny or stuffy nose).

MOUTH: **taste, unpleasant, after inhalation.**

THROAT: *irritation*.

STOMACH: *nausea; vomiting*.

ABDOMEN: *pain, abdominal*.

COUGH: *cough*.

EXTREMITIES: *arthritis* (pain, stiffness, or swelling of joints).

GENERALITIES: *arthritis* (pain, stiffness, or swelling of joints); *leukopenia* (signs of infection, such as fever, sore throat, body aches, or chills); *neutropenia* (signs of infection, such as fever, sore throat, body aches, or chills); *sensation of warmth; tremor*.

DIAGNOSTIC TESTS: *leukopenia; neutropenia*.

Secondary Actions or Rebound Effects: *bronchospasm, increased* (increased wheezing, tightness in chest, or difficulty in breathing).

Nedocromil (Ophthalmic)

Commercial name(s): *Alocril*.

Category: Mast cell stabilizer (ophthalmic); Antiallergic (ophthalmic).

Conventional indications: Conjunctivitis, allergic (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

EYE: burning; irritation; photophobia (blurred vision; change in color vision; difficulty seeing at night; increased sensitivity of eyes to sunlight); redness; stinging.

NOSE: congestion (stuffy nose); rhinitis (stuffy nose; runny nose; sneezing) (rebound effect?).

MOUTH: taste, unpleasant

RESPIRATION: asthma (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing) (rebound effect?).

CHEST: asthma (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing) (rebound effect?).

Secondary Actions or Rebound Effects: conjunctivitis (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing).

Nefazodone (Systemic)

Commercial name(s): *Serzone*.

Category: Antidepressant.

Conventional indications: Depressive disorder, major (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: agitation; confusion; memory impairment; *retardation, psychomotor* (generalized slowing of mental and physical activity); *apathy; concentration decreased; depersonalization; derealization; dysarthria* (problems in speaking); *euphoria* (unusual feeling of well-being); *hallucinations* (seeing, hearing, or feeling things that are not there); *hostility* (mood or mental changes); *mania or hypomania* (talking, feeling, and acting with excitement and activity you cannot control); *paranoid reaction* (mood or mental changes); *thinking, abnormal*.

VERTIGO: dizziness; gait, abnormal; hypotension or postural hypotension (lightheadedness or fainting); *syncope* (fainting).

HEAD: headache.

EYE: *pain, eye; angioedema* (large, hive-like swelling on eyelids); *conjunctivitis or keratoconjunctivitis* (red or irritated eyes); *dryness; mydriasis* (large pupils); *photophobia* (sensitivity of eyes to light).

VISION: abnormal vision; blurred vision; field defects, visual (changes in vision); **scotoma; trails, visual; accommodation, abnormality of** (blurred vision); *diplopia* (double vision).

EAR: *pain, ear.*

HEARING: **tinnitus** (ringing in the ears); *hyperacusis* (increased sense of hearing).

FACE: *angioedema* (large, hive-like swelling on face, lips); *edema* (swelling of face).

MOUTH: **dryness**; *angioedema* (large, hive-like swelling on tongue); *dysarthria* (problems in speaking); *stomatitis* (irritation or soreness of mouth); *ulcers* (irritation or soreness of mouth).

THROAT: **pharyngitis** (sore throat); *angioedema* (large, hive-like swelling on throat).

STOMACH: **appetite, increased**; **dyspepsia** (heartburn); **nausea**; **vomiting**; *gastroenteritis* (diarrhea; nausea; stomach pain); *pain, abdominal* (pain in stomach or abdomen); *thirst, increased*; *bleeding, gastrointestinal* (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds).

ABDOMEN: *gastroenteritis* (diarrhea; nausea; stomach pain); *pain, abdominal* (pain in stomach or abdomen); *bleeding, gastrointestinal* (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds); *necrosis and failure, liver* (light-colored stools or dark urine; gastrointestinal complaints; lack of appetite; unusual tiredness); *pain, pelvic*.

RECTUM: **constipation** (rebound effect?); **diarrhea**; *bleeding, gastrointestinal* (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds); *hemorrhage, rectal* (bleeding from the rectum).

BLADDER: *infection, urinary tract* (bladder pain, bloody or cloudy urine, difficult, burning, or painful urination, frequent urge to urinate, lower back or side pain); *cystitis*; *incontinence, urinary* (problems with urination); *nocturia*; *polyuria*; *urgency, urinary*.

KIDNEYS: *infection, urinary tract* (bladder pain, bloody or cloudy urine, difficult, burning, or painful urination, frequent urge to urinate, lower back or side pain); *calculus* (kidney stones).

URINE: *hematuria*.

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs); *ejaculation, abnormal* (change in sexual desire or performance); *impotence*; *libido, increased or decreased*; *priapism* (prolonged, painful, inappropriate penile erection).

GENITALIA FEMALE: *vaginitis* (itching of the vagina or genital area, pain during sexual intercourse, thick, white vaginal discharge with no odor or with a mild odor); *amenorrhea*; *angioedema* (large, hive-like swelling on sex organs); *hemorrhage, vaginal* (menstrual changes); *libido, increased or decreased*; *menorrhagia*; *metrorrhagia*.

RESPIRATION: *bronchitis* (shortness of breath, tightness in chest, or wheezing); *dyspnea* (troubled breathing); *asthma*.

COUGH: **cough, increased**.

CHEST: *bronchitis* (shortness of breath, tightness in chest, or wheezing); *pain, breast*; *angina pectoris* (chest pain); *asthma*; *galactorrhea* (unexpected or excess milk flow from breasts); *gynecomastia, male* (swelling of the breasts or breast soreness in males); *tachycardia* (fast heartbeat); *bradycardia*.

EXTREMITIES: **ataxia** (clumsiness or unsteadiness); **edema, peripheral** (swelling of arms or legs); *arthralgia* (joint pain); *hypertonia* (excessive muscle tone, muscle tension or tightness, muscle stiffness); *retardation, psychomotor* (generalized slowing of mental and physical activity); *angioedema* (large, hive-like swelling on hands, legs, feet); *arthritis* (joint or muscle pain or stiffness); *bursitis* (joint or muscle pain or stiffness); *coordination*,

poor; *gout* (joint pain; lower back or side, or stomach pain); *neuralgia* (nerve pain); *rhabdomyolysis, in combination with Lovastatin or Simvastatin* (dark-colored urine; fever; muscle pain or stiffness; unusual tiredness or weakness); *stiffness, muscle* (muscle pain or stiffness); *tenosynovitis* (joint or muscle pain or stiffness); *twitching*.

SLEEP: *drowsiness*; *insomnia* (trouble in sleeping); *somnolence*.

DREAMS: *abnormal dreams*.

CHILL: *chills*.

FEVER: *fever*.

PERSPIRATION: *sweating*.

SKIN: *flushing*; *itching*; *rash*; *pruritus* (itching skin); *photosensitivity* (increased sensitivity to sun); *urticaria* (hives).

GENERALITIES: *feeling of warmth*; *flushing*; *hypotension or postural hypotension* (lightheadedness or fainting); *paresthesia* (tingling, burning, or prickly sensations); *tremor*; *arthralgia* (joint pain); *asthenia* (loss of strength or energy; muscle pain or weakness); *hypertonia* (excessive muscle tone, muscle tension or tightness, muscle stiffness); *infection* (fever or chills, cough or hoarseness, lower back or side pain, painful or difficult urination); *retardation, psychomotor* (generalized slowing of mental and physical activity); *vasodilation* (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or light-headedness; sweating); *anemia* (unusual tiredness or weakness); *arthritis* (joint or muscle pain or stiffness); *bursitis* (joint or muscle pain or stiffness); *convulsions, including grand mal seizures* (muscle spasm or jerking of all extremities; sudden loss of consciousness); *death*; *ecchymosis* (unusual bleeding or bruising); *gout* (joint pain; lower back or side, or stomach pain); *hypertension*; *leukopenia* (fever, chills, or sore throat); *lymphadenopathy* (swollen glands); *neuralgia* (nerve pain); *rhabdomyolysis, in combination with Lovastatin or Simvastatin* (dark-colored urine; fever; muscle pain or stiffness; unusual tiredness or weakness); *serotonin syndrome* (agitation; diarrhea; sweating; poor coordination); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; itching; red skin lesions, often with a purple center; unusual tiredness or weakness); *stiffness, muscle* (muscle pain or stiffness); *tachycardia* (fast heartbeat); *tenosynovitis* (joint or muscle pain or stiffness); *thrombocytopenia* (black, sticky stools; pain, warmth, or burning in fingers, toes and legs; sore throat; dizziness); *twitching*; *bradycardia*.

DIAGNOSTIC TESTS: *calculus*; *hematuria*; *hyponatremia*; *thrombocytopenia*.

Nelfinavir (Systemic)

Commercial name(s): *Viracept*.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus (HIV) infection (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: *nausea*.

ABDOMEN: *flatulence* (intestinal gas); *bilirubinemia*.

RECTUM: *diarrhea*.

RESPIRATION: *bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing).

CHEST: *bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *torsades de pointes* (chest pain or discomfort; irregular or slow heart rate; fainting; shortness of breath).

FEVER: *fever*.

SKIN: *rash*.

GENERALITIES: fat redistribution; *acidosis, metabolic* (confusion; drowsiness; muscle tremors; nausea; rapid, deep breathing; restlessness; stomach cramps; unusual tiredness or weakness); *bilirubinemia; bleeding, increased, including spontaneous skin hematomas and hemarthrosis* (in HIV-infected patients with hemophilia type A or B who are receiving protease inhibitor therapy); *diabetes* (dry or itchy skin; fatigue; hunger, increased; thirst, increased; unexplained weight loss; urination, increased); *hyperglycemia* (dry or itchy skin; fatigue; hunger, increased; thirst, increased; unexplained weight loss; urination, increased); *jaundice* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *ketoacidosis* (confusion; dehydration; fruity mouth odor; nausea; vomiting; weight loss); *torsades de pointes* (chest pain or discomfort; irregular or slow heart rate; fainting; shortness of breath).

DIAGNOSTIC TESTS: *acidosis, metabolic* (confusion; drowsiness; muscle tremors; nausea; rapid, deep breathing; restlessness; stomach cramps; unusual tiredness or weakness); *bilirubinemia; hyperglycemia* (dry or itchy skin; fatigue; hunger, increased; thirst, increased; unexplained weight loss; urination, increased); *ketoacidosis; QTc prolongation* (irregular heartbeat; recurrent fainting); *torsades de pointes*.

Neomycin (Ophthalmic)

Category: Antibacterial (ophthalmic).

Conventional indications: Ocular infections (treatment); Blepharitis, bacterial (treatment); Blepharoconjunctivitis (treatment); Conjunctivitis, bacterial (treatment); Keratitis, bacterial (treatment); Keratoconjunctivitis, bacterial (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: hypersensitivity (itching, rash, redness, swelling, or other sign of irritation not present before therapy); *burning; stinging*.

VISION: *blurred vision*.

Neomycin (Oral-Local)

Commercial name(s): *Mycifradin*.

Category: Hepatic encephalopathy therapy adjunct; Bowel preparation (preoperative) adjunct.

Conventional indications: Bowel preparation, preoperative; Hepatic encephalopathy (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *ototoxicity, vestibular* (clumsiness, dizziness, unsteadiness).

EAR: *feeling of fullness in the ears.*

HEARING: *buzzing; hearing, loss of; ringing.*

MOUTH: *irritation; soreness.*

STOMACH: *nausea; vomiting.*

ABDOMEN: *malabsorption syndrome* (diarrhea; increased amount of gas; light-colored, frothy, fatty-appearing stools).

RECTUM: *diarrhea; irritation of rectal area; soreness of rectal area.*

KIDNEYS: *nephrotoxicity* (greatly decreased frequency of urination or amount of urine; increased thirst).

EXTREMITIES: *neuromuscular blockade* (difficulty in breathing; drowsiness; weakness).

SKIN: *rash.*

GENERALITIES: *malabsorption syndrome* (diarrhea; increased amount of gas; light-colored, frothy, fatty-appearing stools); *neuromuscular blockade* (difficulty in breathing; drowsiness; weakness).

Neomycin (Topical)

Commercial name(s): *Myciguent.*

Category: Antibacterial (topical).

Conventional indications: Skin infections, bacterial, minor (prophylaxis); Skin infections, bacterial, minor (treatment); Ulcer, dermal (treatment).

Primary Actions or Pathogenetic Symptoms

HEARING: *hearing, loss of.*

SKIN: *dermatitis, contact* (itching, rash, redness, swelling, or other sign of skin irritation not present before therapy).

Neomycin and Polymyxin B (Topical)

Commercial name(s): *Neosporin Cream.*

Category: Antibacterial (topical).

Conventional indications: Skin infections, bacterial, minor (prophylaxis); Ulcer, dermal (treatment).

Primary Actions or Pathogenetic Symptoms

HEARING: *hearing, loss of.*

SKIN: *dermatitis, contact; hypersensitivity* (itching, pain, skin rash, swelling, redness, or other sign of skin irritation not present before therapy).

GENERALITIES: *allergic reactions.*

Neomycin, Polymyxin B, and Bacitracin (Ophthalmic)

Commercial name(s): *Ak-Spore Ophthalmic Ointment; Neocidin Ophthalmic Ointment; Neosporin Ophthalmic Ointment; Neotal; Ocu-Spor-B; Ocusporin; Ocutricin Ophthalmic Ointment; Ophthalmic; Spectro-Sporin; Triple Antibiotic.*

Category: Antibacterial (ophthalmic).

Conventional indications: Ocular infections (treatment); Blepharitis, bacterial (treatment); Blepharoconjunctivitis (treatment); Conjunctivitis, bacterial (treatment); Keratitis, bacterial (treatment); Keratoconjunctivitis, bacterial (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: hypersensitivity (itching, rash, redness, swelling, or other sign of irritation not present before therapy).

VISION: *blurred vision, from the ointment.*

Neomycin, Polymyxin B, and Bacitracin (Topical)

Commercial name(s): *Bactine First Aid Antibiotic; Foille; Mycitracin; Neosporin Maximum Strength Ointment; Neosporin Ointment; Topisporin.*

Category: Antibacterial (topical).

Conventional indications: Skin infections, bacterial, minor (prophylaxis); Skin infections, bacterial, minor (treatment); Ulcer, dermal (treatment).

Primary Actions or Pathogenetic Symptoms

HEARING: *hearing, loss of.*

SKIN: hypersensitivity (itching, skin rash, redness, swelling, or other sign of irritation not present before therapy).

Neomycin, Polymyxin B, and Gramicidin (Ophthalmic)

Commercial name(s): *Ak-Spore Ophthalmic Solution; Neocidin Ophthalmic Solution; Neosporin Ophthalmic Solution; Ocu-Spor-G; Ocutricin Ophthalmic Solution; P.N. Ophthalmic; Tri-Ophthalmic; Tribiotic; Triple Antibiotic.*

Category: Antibacterial (ophthalmic).

Conventional indications: Ocular infections (treatment); Blepharitis, bacterial (treatment); Blepharoconjunctivitis (treatment); Conjunctivitis, bacterial (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: hypersensitivity (itching, rash, redness, swelling, or other sign of irritation in or around the eye not present before therapy); *burning; stinging; punctate staining of the cornea* [Neomycin].

Neomycin, Polymyxin B, and Hydrocortisone (Ophthalmic)

Commercial name(s): *Ak-Spore H.C. Ophthalmic Suspension; Cortisporin Eye/Ear Suspension; Cortisporin Ophthalmic Suspension.*

Category: Anti-inflammatory (steroidal), ophthalmic; Corticosteroid (ophthalmic); Antibacterial (ophthalmic).

Conventional indications: Inflammation, ocular (treatment); Ocular infections, superficial (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: hypersensitivity (itching, rash, redness, swelling, or other sign of irritation not present before therapy); burning when applying medication; stinging when applying medication; cataract, subcapsular, posterior; glaucoma; healing of eye infection, delayed; hypertension, ocular; optic nerve damage; sensitization (itching, reddening, and edema of the conjunctiva and eyelid; failure to heal).

VISION: *visual acuity defects and/or visual field defects* (blurred vision or other change in vision).

GENERALITIES: *allergic reaction, specifically anaphylaxis* (severe shortness of breath or trouble breathing; sudden, severe decrease in blood pressure; swelling around face); *immune response, suppressed.*

Neomycin, Polymyxin B, and Hydrocortisone (Otic)

Commercial name(s): *AK-Spore HC Otic; Antibiotic Ear; Cort-Biotic; Cortatrigen Ear; Cortatrigen Modified Ear Drops; Cortisporin; Cortomycin; Drotic; Ear-Eze; LazerSporin-C; Masporin Otic; Octicair; Octigen; Otic-Care; Otic-Care Ear; Otimar; Otisan; Otocidin; Otocort; Pediotic; UAD Otic.*

Category: Antibacterial-corticosteroid (otic).

Conventional indications: Ear canal infections, external (treatment); Mastoidectomy cavity infections (treatment); Otitis media, chronic suppurative (treatment).

Primary Actions or Pathogenetic Symptoms

EAR: hypersensitivity (itching, skin rash, redness, swelling, or other sign of irritation in or around the ear not present before therapy)

Nepafenac (Ophthalmic)

Commercial name(s): *Nevanc.*

Category: Anti-inflammatory, nonsteroidal, ophthalmic.

Conventional indications: Inflammation, ocular (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

EYE: **pressure, intraocular, increase in** (blurred vision; change in vision; loss of vision); **sensation, foreign body** (feeling of having something in the eye); **sticky sensation of eyelids**; crusting, lid margin (crusting in corner of eye); detachment, vitreous (seeing flashes or sparks of light; seeing floating spots before the eyes, or a veil or curtain appearing across part of vision); discomfort (pain in eye); dryness; edema, conjunctival (swelling and/or redness of eye and lining of eyelid); edema, corneal (swelling of the eye); hyperemia (redness of eye); pain (eye pain); photophobia (blurred vision; change in color vision; difficulty seeing at night; increased sensitivity of eyes to sunlight); pruritus (eye itching); tearing.

VISION: **visual acuity decrease** (decrease in vision).

NOSE: sinusitis (pain or tenderness around eyes and cheekbone; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

STOMACH: nausea; vomiting.

GENERALITIES: hypertension (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); sinusitis (pain or tenderness around eyes and cheekbone; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

Nesiritide (Systemic)

Commercial name(s): *Natrecor*.

Category: Cardiotonic.

Conventional indications: Heart failure, congestive (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: anxiety; confusion.

VERTIGO: dizziness.

HEAD: **headache.**

VISION: amblyopia (blurred, or impaired vision).

STOMACH: nausea; vomiting.

ABDOMEN: pain, abdominal.

RESPIRATION: apnea (bluish lips or skin; difficulty in breathing).

COUGH: cough, increased; hemoptysis (coughing or spitting up blood).

CHEST: angina pectoris (chest pain or discomfort; chest tightness; shortness of breath); bradycardia (slow or irregular heartbeat; lightheadedness; dizziness or fainting; unusual tiredness or weakness); extrasystoles, ventricular (fast or irregular heartbeat); hemoptysis (coughing or spitting up blood); fibrillation, atrial (fast or irregular heartbeat; dizziness; fainting); tachycardia, ventricular (fast heartbeat).

BACK: pain, back.

EXTREMITIES: cramps of the leg.

SLEEP: insomnia (sleeplessness); somnolence (sleepiness or unusual drowsiness).

FEVER: fever.

PERSPIRATION: sweating.

SKIN: *pruritus* (itching skin); *rash*.

GENERALITIES: **hypotension, asymptomatic; anemia** (pale skin; troubled breathing; unusual bleeding or bruising; unusual tiredness or weakness); *bradycardia* (slow or irregular heartbeat; lightheadedness; dizziness or fainting; unusual tiredness or weakness); *extrasystoles, ventricular* (fast or irregular heartbeat); *fibrillation, atrial* (fast or irregular heartbeat; dizziness; fainting); *hypotension, symptomatic* (cool, clammy skin; dizziness; lightheadedness; weakness); *injection site reaction; pain, catheter; paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings on the skin); *tachycardia, ventricular* (fast heartbeat); *tremor*.

DIAGNOSTIC TESTS: *AV node conduction abnormalities; extrasystoles, ventricular; fibrillation, atrial; tachycardia, ventricular*.

Neuromuscular Blocking Agents (Systemic)

Commercial name(s): *Anectine; Flaxedil; Mivacron; Nimbex; Norcuron; Nuromax; Pavulon; Quelicin; Sucostrin; Tracrium; Zemuron*.

Category: Neuromuscular blocking paralyzing agent: Depolarizing neuromuscular blocking agent [Succinylcholine]; Nondepolarizing neuromuscular blocking agent [Atracurium, cisatracurium, doxacurium, gallamine, mivacurium, pancuronium, rapacuronium, rocuronium, tubocurarine, vecuronium].

Conventional indications: Skeletal muscle paralysis; Convulsions (treatment) [Atracurium, gallamine, pancuronium, succinylcholine, tubocurarine, and vecuronium]; Myasthenia gravis (diagnosis) [Tubocurarine].

Primary Actions or Pathogenetic Symptoms

EYE: **pressure, intraocular, increased.**

MOUTH: *salivation, excessive*.

URINE: *myoglobinuria* (caused by rhabdomyolysis).

LARYNX AND TRACHEA: *laryngospasm*.

RESPIRATION: *bronchospasm; laryngospasm; apnea*.

CHEST: *arrhythmias, cardiac; bradycardia; tachycardia* (more frequent with Gallamine); *bronchospasm*.

EXTREMITIES: *paralysis* (neuromuscular block); **pain and stiffness, muscle, postoperative** [Succinylcholine]; *rhabdomyolysis* (myoglobinemia and myoglobinuria)

SKIN: *erythema; flushing* (more common with Atracurium); *hives; itching; rash* (less frequent with Pancuronium).

GENERALITIES: *paralysis* (neuromuscular block); **pain and stiffness, muscle, postoperative** [Succinylcholine]; *arrhythmias, cardiac; blood pressure, decreased* (more common with Gallamine); *bradycardia; tachycardia* (more frequent with Gallamine); *anaphylactic, anaphylactoid, or other hypersensitivity reaction; blood pressure, decreased* (more common with Tubocurarine and Atracurium); *depression or collapse, circulatory; edema; flushing* (more common with Atracurium); *hyperthermic crisis, malignant; hypotension, severe; shock*.

DIAGNOSTIC TESTS: *myoglobinemia* (caused by rhabdomyolysis).

Nevirapine (Systemic)

Commercial name(s): *Viramune*.

Category: Antiviral (Systemic).

Conventional indications: Human immunodeficiency virus type 1 (HIV-1) infection (treatment); Mother-to-child transmission of HIV-1 infection (prophylaxis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: vertigo (dizziness; sense of constant movement of self or surroundings).

HEAD: headache.

FACE: edema (bloating or swelling of face).

MOUTH: *stomatitis, ulcerative* (sores or ulcers in the mouth).

STOMACH: **nausea; pain; vomiting.**

ABDOMEN: **hepatitis and hepatic failure** (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin; including cholestatic hepatitis, infectious hepatitis, hepatic failure, and/or LFT abnormalities with clinical symptoms); **pain, abdominal;** *hepatotoxicity* (dark urine; yellow skin or eyes); *hyperbilirubinemia; necrosis, hepatic.*

RECTUM: **diarrhea.**

CHEST: infiltrates, pulmonary (cough; chest pain; unusual tiredness or weakness).

EXTREMITIES: *arthralgia* (joint pain); *myalgia* (muscle pain); *neuropathy, peripheral* (pain, numbness, or tingling of hands, arms, legs, or feet); edema (bloating or swelling of hands, lower legs, and/or feet).

SLEEP: *somnolence* (sleepiness or unusual drowsiness); insomnia (trouble sleeping).

FEVER: *fever.*

SKIN: **erythema multiforme; rash** (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness; including erythema multiforme, exfoliative dermatitis, necrosis requiring surgery, Stevens-Johnson syndrome, and/or toxic epidermal necrolysis); *skin reactions, severe, life-threatening, including fatal cases*; erythema nodosum (fever; pain in ankles or knees; painful, red lumps under the skin, mostly on the legs).

GENERALITIES: **erythema multiforme; fatigue** (unusual tiredness or weakness); **granulocytopenia** (chills, fever, or sore throat); **hepatitis and hepatic failure** (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin; including cholestatic hepatitis, infectious hepatitis, hepatic failure, and/or LFT abnormalities with clinical symptoms); **Stevens-Johnson syndrome;** *hepatitis prodromal symptoms* (loss of appetite; nausea; unusual tiredness or weakness; vomiting; fatigue, malaise, anorexia, nausea, jaundice, liver tenderness or hepatomegaly, with or without initially abnormal serum transaminase levels); *allergic reactions* (fainting or loss of consciousness; fast or irregular breathing; swelling of eyes or eyelids; trouble in breathing; tightness in chest and/or wheezing; skin rash; itching; including anaphylaxis, angioedema, bullous eruptions, ulcerative stomatitis and/or

urticaria); *anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); *arthralgia* (joint pain); *eosinophilia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding); *hepatitis, fulminant and cholestatic*; *hyperbilirubinemia*; *hypersensitivity reactions with rash* (lymphadenopathy, renal dysfunction, hepatitis, eosinophilia, granulocytopenia; also can be associated with constitutional findings such as fever, blistering, oral lesions, conjunctivitis, facial edema, muscle or joint aches, general malaise, fatigue or significant hepatic abnormalities); *jaundice* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *myalgia* (muscle pain); *neutropenia* (chills; cough; fever; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands); *paresthesia* (tingling, burning, or prickly sensations); *redistribution/accumulation of body fat*; weight decrease.
DIAGNOSTIC TESTS: *anemia*; *eosinophilia*; *hyperbilirubinemia*; *neutropenia*.

Niacin (Systemic)

Commercial name(s): *Niacor*; *Niaspan*; *Nicolar*; *Nicotinex Elixir*; *Novo-Niacin*; *Slo-Niacin*.

Category: Nutritional supplement (vitamin) [Niacin; Niacinamide]; Antihyperlipidemic [Niacin].

Conventional indications: Niacin deficiency (prophylaxis and treatment); Hyperlipidemia (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness (with high oral Niacin doses); faintness (with high oral Niacin doses).

HEAD: headache [Niacin].

EYE: dryness (with high oral Niacin doses).

NOSE: rhinitis (stuffy nose; runny nose; sneezing) [Niacin].

FACE: flushing, face [Niacin]; redness, face [Niacin].

EXTERNAL THROAT: flushing, neck [Niacin]; redness, neck [Niacin].

STOMACH: nausea (with high oral Niacin doses); ulcer, peptic, aggravation of (stomach pain) (with high oral Niacin doses); vomiting (with high oral Niacin doses).

ABDOMEN: pain, abdominal [Niacin]; hepatotoxicity (darkening of urine; light gray-colored stools; loss of appetite; severe stomach pain; yellow eyes or skin); cholestasis (darkening of urine; light gray-colored stools; loss of appetite; severe stomach pain; yellow eyes or skin).

RECTUM: diarrhea (with high oral Niacin doses).

RESPIRATION: shortness of breath.

CHEST: arrhythmias, cardiac (unusually fast, slow, or irregular heartbeat) (with high oral Niacin doses); palpitations; tachycardia.

EXTREMITIES: *myalgia* (fever; muscle aching or cramping; unusual tiredness or weakness) (with high oral Niacin doses); *myositis*; *rhabdomyolysis*.

CHILL: *chills*.

FEVER: *fever*.

PERSPIRATION: *sweating*.

SKIN: *dryness* (with high oral Niacin doses); *flushing* [Niacin]; *pruritus* (itching of skin) (with high oral Niacin doses); *rash* [Niacin]; *redness* [Niacin].

GENERALITIES: *hypolipidemia*; *arrhythmias*, *cardiac* (unusually fast, slow, or irregular heartbeat) (with high oral Niacin doses); *feeling of warmth* [Niacin]; *flushing* [Niacin]; *hyperglycemia*, *occasionally fatal* (frequent urination or unusual thirst) (with high oral Niacin doses); *myalgia* (fever; muscle aching or cramping; unusual tiredness or weakness) (with high oral Niacin doses); *allergic reaction*, *anaphylactic* (skin rash or itching; wheezing); *edema*; *myositis*; *palpitations*; *rhabdomyolysis*; *tachycardia*; *tiredness or weakness*, *unusual*.

DIAGNOSTIC TESTS: *hyperglycemia*, *occasionally fatal* (with high oral Niacin doses); *hyperuricemia* (with high oral Niacin doses); *creatine kinase (CK) concentrations*, *elevated*.

Niacin and Lovastatin (Systemic)

Commercial name(s): *Advicor*.

Category: Antihyperlipidemic.

Conventional indications: Hyperlipidemia (treatment)

Primary Actions or Pathogenetic Symptoms

VERTIGO: *syncope* (feeling faint or fainting); *dizziness* [Niacin].

HEAD: *headache*.

STOMACH: *nausea*; *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); *vomiting*.

ABDOMEN: *pain*, *abdominal* (stomach pain).

RECTUM: *diarrhea*.

RESPIRATION: *shortness of breath*.

CHEST: *tachycardia* (fast, pounding, or irregular heartbeat or pulse); *arrhythmia*, *cardiac* (chest pain or discomfort; *dizziness*; fainting; fast, slow, or irregular heartbeat; lightheadedness; pounding or rapid pulse) [Niacin].

BACK: *pain*, *back*.

EXTREMITIES: *myalgia* (difficulty in moving; joint pain; muscle aching, cramping pain or stiffness; swollen joints); *myopathy* (muscle aches, weakness, tenderness, or pain); *rhabdomyolysis*, *with or without acute renal failure*, *secondary to myoglobinuria* (dark-colored urine; fever; muscle cramps, pain, spasms, or stiffness; unusual tiredness or weakness).

CHILL: *chills*.

PERSPIRATION: *sweating*.

SKIN: **flushing** (feeling of warmth, redness, itching, and/or tingling of the face, neck, arms and occasionally, upper chest); **pruritus** (itching skin); **rash**.

GENERALITIES: **hypolipidemia**; **asthenia** (lack or loss of strength); **edema** (swelling); **flu syndrome** (chills; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **flushing** (feeling of warmth, redness, itching, and/or tingling of the face, neck, arms and occasionally, upper chest); **infection** (cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination); **pain, generalized**; **tachycardia** (fast, pounding, or irregular heartbeat or pulse); **hyperglycemia** (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); **myalgia** (difficulty in moving; joint pain; muscle aching, cramping pain or stiffness; swollen joints); **myopathy** (muscle aches, weakness, tenderness, or pain); **rhabdomyolysis, with or without acute renal failure, secondary to myoglobinuria** (dark-colored urine; fever; muscle cramps, pain, spasms, or stiffness; unusual tiredness or weakness); arrhythmia, cardiac (chest pain or discomfort; dizziness; fainting; fast, slow, or irregular heartbeat; lightheadedness; pounding or rapid pulse) [Niacin]; death (in mice) [Lovastatin]; hypotension (blurred vision; confusion; dizziness; faintness; lightheadedness when getting up from a lying or sitting position; sudden sweating; unusual tiredness or weakness) [Niacin].

DIAGNOSTIC TESTS: hyperglycemia.

Niclosamide (Oral-Local)

Commercial name(s): *Niclocide*.

Category: Anthelmintic (oral-local).

Conventional indications: Diphyllbothriasis (treatment); Hymenolepiasis (treatment); Taeniasis (treatment); Dipylidiasis (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness; lightheadedness*.

MOUTH: *taste, unpleasant*.

STOMACH: *appetite, loss of; cramps; nausea; pain; vomiting*.

ABDOMEN: *cramps, abdominal; pain, abdominal*.

RECTUM: *diarrhea; itching of the rectal area*.

SLEEP: *drowsiness*.

SKIN: *rash*.

Nicotine (Inhalation-Systemic)

Commercial name(s): *Nicotrol Inhaler*.

Category: Smoking cessation adjunct.

Conventional indications: Nicotine dependence (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: confusion; exhaustion, extreme.

VERTIGO: dizziness.

HEAD: headache.

VISION: disturbed hearing and vision.

HEARING: disturbed hearing and vision.

NOSE: **rhinitis** (stuffy nose); sinusitis (stuffy nose).

FACE: pain in jaw and neck.

MOUTH: **irritation**; taste, change in; salivation.

TEETH: tooth disorders.

THROAT: **irritation**.

EXTERNAL THROAT: pain in jaw and neck.

STOMACH: **dyspepsia** (indigestion); hiccups; nausea; vomiting.

ABDOMEN: flatulence (passing of gas); pain, abdominal.

RECTUM: diarrhea.

RESPIRATION: failure, respiratory.

COUGH: **coughing**.

CHEST: heartbeat, fast or irregular; bradycardia.

BACK: pain, back.

FEVER: fever.

PERSPIRATION: cold sweat.

SKIN: pale skin.

GENERALITIES: allergic reaction (fever with or without chills; headache; nausea with or without vomiting; runny nose; shortness of breath, tightness in chest, trouble in breathing, or wheezing; skin rash, itching, or hives; tearing of eyes); flu-like symptoms; heartbeat, fast or irregular; pain, general; paresthesias (sensation of burning, numbness, tightness, tingling, warmth or heat); sinusitis (stuffy nose); bradycardia; death (due to respiratory paralysis or cardiac failure); exhaustion, extreme; hypotension; seizures (at lethal doses); tremors; weakness.

Secondary Actions or Rebound Effects: nicotine withdrawal (anxiety; dizziness; feelings of drug dependence; mental depression; pain in muscles; trouble in sleeping; unusual tiredness or weakness).

Nicotine (Nasal)

Commercial name(s): *Nicotrol NS*.

Category: Smoking cessation adjunct.

Conventional indications: Nicotine dependence (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: confusion; amnesia; exhaustion, extreme.

VERTIGO: dizziness.

HEAD: **headache;** *paresthesias of head* (burning, tingling, or prickly sensations); *migraine headache*.

EYE: **watery eyes;** *burning; irritation*.

VISION: *changes in vision;* disturbed hearing and vision.

EAR: *earache*.

HEARING: disturbed hearing and vision.

NOSE: **irritation, moderate or severe; runny nose; sneezing;** *blister, nasal; congestion; irritation, sinus; nosebleed, transient; numbness; paresthesias of nose* (burning, tingling, or prickly sensations); *smell, change in sense of, transient; ulcer, nasal*.

FACE: *flushing of face*.

MOUTH: **swelling of gums, mouth, or tongue;** *gum problems; numbness; paresthesias of mouth* (burning, tingling, or prickly sensations); *taste, change in sense of, transient; dryness; speaking, difficulty in;* salivation, excessive.

THROAT: **irritation; hoarseness; pharyngitis** (difficulty in swallowing; dryness or pain in throat); *sputum production increased*.

STOMACH: **indigestion; nausea; hiccups;** vomiting.

ABDOMEN: *flatulence; pain, abdominal*.

RECTUM: **constipation; diarrhea**

GENITALIA FEMALE: *dysmenorrhea; menstrual disorders*.

RESPIRATION: **shortness of breath;** *bronchitis; bronchospasm*.

COUGH: **cough**.

CHEST: **tightness in chest;** *heartbeat, fast or irregular; bronchitis; bronchospasm;* bradycardia.

BACK: **pain, back**.

EXTREMITIES: **pain in joints; tingling in arms, legs, hands, or feet;** *pain in muscles;* edema (swelling of feet or lower legs).

PERSPIRATION: cold sweat.

SKIN: *acne; itching; purpura* (blood-containing blisters on skin); *rash;* pale skin

GENERALITIES: **pain in joints;** *heartbeat, fast or irregular; pain in muscles;* bradycardia; death (due to respiratory paralysis or cardiac failure); exhaustion, extreme; hypotension; seizures (at lethal doses); tremors; weakness.

Nicotine (Systemic)

Commercial name(s): *Commit; Habitrol; NicoDerm CQ; Nicoderm; Nicorette; Nicorette Plus; Nicotrol; Prostap*.

Category: Smoking cessation adjunct.

Conventional indications: Nicotine dependence (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: confusion; exhaustion, extreme.

VERTIGO: *dizziness, mild; lightheadedness, mild;* fainting.

HEAD: **headache, mild**.

VISION: disturbed hearing and vision.

HEARING: disturbed hearing and vision.

FACE: ache, jaw muscle [chewing gum].

MOUTH: injury to mouth [chewing gum]; irritation to mouth [chewing gum]; soreness [chewing gum]; watering of mouth, increased, mild [chewing gum]; dryness; taste, change in sense of.

TEETH: injury to teeth, or dental work [chewing gum]; irritation to teeth, or dental work [chewing gum].

THROAT: soreness [chewing gum]; hoarseness [chewing gum].

STOMACH: appetite, increased (rebound effect?); belching [chewing gum]; appetite, loss of; heartburn (pain in the chest below the breastbone; belching; feeling of indigestion) [lozenge]; hiccups [chewing gum and lozenge]; indigestion, mild; nausea; pain; vomiting.

ABDOMEN: flatulence (passing of gas); pain, abdominal.

RECTUM: constipation (rebound effect?); diarrhea.

GENITALIA FEMALE: dysmenorrhea (menstrual pain).

RESPIRATION: difficulty in breathing, severe.

COUGH: coughing, increased.

CHEST: heartbeat, fast or irregular; pulse, fast, weak, or irregular.

EXTREMITIES: pain, muscle or joint.

SLEEP: drowsiness; trouble in sleeping.

DREAMS: abnormal dreams.

PERSPIRATION: sweating, increased; cold sweat.

SKIN: erythema (redness); pruritus (itching); rash; urticaria (hives); pale skin.

GENERALITIES: burning at site of application [transdermal systems]; erythema at site of application (redness) [transdermal systems]; pruritus at site of application (itching) [transdermal systems]; hypertension; pain, muscle or joint; edema (swelling); heartbeat, fast or irregular; hypersensitivity reactions, local or generalized (edema; erythema; pruritus; rash; urticaria); death (due to respiratory paralysis or cardiac failure); exhaustion, extreme; hypotension; pulse, fast, weak, or irregular; seizures; tremor; weakness.

Secondary Actions or Rebound Effects: irritability, unusual; nervousness, unusual.

Nisoldipine (Systemic)

Commercial name(s): Sular.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

NOSE: sinusitis (headache; stuffy nose).

FACE: angioedema (swelling of the face, lips).

MOUTH: angioedema (swelling of the tongue).

THROAT: *pharyngitis* (hoarseness; sore throat); *angioedema* (swelling of the throat).

STOMACH: *nausea*.

RESPIRATION: *shortness of breath*.

CHEST: *pain, chest; palpitations* (heartbeat sensations); *tachycardia* (fast heart rate); *tightness, chest*.

EXTREMITIES: **edema, peripheral** (swelling of ankles, feet, and lower legs); *angioedema* (swelling of the arms, legs).

SKIN: *rash*.

GENERALITIES: *hypotension* (dizziness, lightheadedness, or fainting); *palpitations* (heartbeat sensations); *sinusitis* (headache; stuffy nose); *hypersensitivity reaction* (angioedema; shortness of breath; tachycardia; chest tightness; hypotension; rash); *tachycardia* (fast heart rate).

Nitazoxanide (Systemic)

Commercial name(s): *Alinia*.

Category: Antiprotozoal.

Conventional indications: Diarrhea (treatment); Parasitic infections, intestinal (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *discoloration* (pale yellow).

NOSE: *rhinitis* (stuffy nose; runny nose; sneezing).

MOUTH: *salivary glands, enlarged*.

STOMACH: **pain, abdominal** (stomach pain); *vomiting*; *anorexia* (loss of appetite; weight loss); *appetite increase*; *nausea*.

ABDOMEN: **pain, abdominal** (stomach pain); *flatulence* (bloated full feeling; excess air or gas in stomach or intestines; passing gas).

RECTUM: *diarrhea*.

URINE: *discolored urine*.

FEVER: *fever*.

PERSPIRATION: *sweating*.

SKIN: *pruritus* (itching skin).

GENERALITIES: *infection*; *malaise* (general feeling of discomfort or illness; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *discolored urine*.

Nitisinone (Systemic)

Commercial name(s): *Orfadin*.

Category: Tyrosine degradation inhibitor.

Conventional indications: Hereditary tyrosinemia type 1 [HT-1] (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness*.

HEAD: *alopecia* (hair loss; thinning of hair); *headache*; *tumor, brain* (change in personality; changes in vision; confusion; headache; problems with walking or talking; seizures; vomiting; weakness).

EYE: *blepharitis* (redness, swelling, and/or itching of eyelid); *cataracts* (blindness; blurred vision; decreased vision); *conjunctivitis* (redness, pain, swelling of eye, eyelid, or inner lining of eyelid burning; dry or itching eyes; drainage from eyes, excessive tearing from eyes); *keratitis* (irritation or inflammation of eye); *opacity, corneal* (blindness; blurred vision; decreased vision); *pain, eye*; *photophobia* (blurred vision; change in color vision; difficulty seeing at night; increased sensitivity of eyes to sunlight); *enanthema* (skin rash found mostly on mucous membranes such as eyes and mouth).

EAR: *otitis* (earache; redness or swelling in ear).

NOSE: *epistaxis* (bloody nose; unexplained nosebleeds).

MOUTH: *enanthema* (skin rash found mostly on mucous membranes such as eyes and mouth).

TEETH: *discoloration, tooth*.

STOMACH: *gastritis* (burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion); *gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); *thirst, increased*.

ABDOMEN: *failure, liver* (headache; stomach pain; vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin); *neoplasm, hepatic* (bloated abdomen; dull, achy, upper abdominal pain; loss of appetite; unexplained weight loss); *pain, abdominal*; *enlargement, liver* (full feeling in upper abdomen; pain in upper abdomen); *gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); *hepatic function disorder* (dark urine; light-colored stools; loss of appetite; nausea and vomiting; unusual tiredness; yellow eyes or skin; fever with or without chills; stomach pain).

RECTUM: *diarrhea*; *hemorrhage, gastrointestinal* (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); *melena* (bloody or black, tarry stools).

STOOL: *melena* (bloody or black, tarry stools).

GENITALIA FEMALE: *amenorrhea* (absent, missed, or irregular menstrual periods; stopping of menstrual bleeding).

RESPIRATION: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *cyanosis* (bluish color of fingernails, lips, skin, palms, or nail beds); *insufficiency, respiratory* (pale or blue lips, fingernails, or skin; difficult or troubled breathing; irregular, fast or slow, or shallow breathing; shortness of breath).

CHEST: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing).

EXTREMITIES: *cyanosis* (bluish color of fingernails, lips, skin, palms, or nail beds); *fracture, pathologic* (pain or swelling in arms or legs without any injury).

SLEEP: *somnolence* (sleepiness or unusual drowsiness).

SKIN: *alopecia* (hair loss; thinning of hair); *dermatitis, exfoliative* (blisters on skin; chills; fever; general feeling of discomfort or illness; red, thickened, or scaly skin; swollen and/or painful glands; unusual bruising); *dryness*; *pruritus* (itching skin); *rash, maculopapular* (rash with flat lesions or small raised lesions on the skin); *enanthema* (skin rash found mostly on mucous membranes such as eyes and mouth); sensitivity to sunlight.

GENERALITIES: *neoplasm, hepatic* (bloated abdomen; dull, achy, upper abdominal pain; loss of appetite; unexplained weight loss); *alopecia* (hair loss; thinning of hair); *leukopenia* (black, sticky stools; chest pain or discomfort; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *porphyria* (darkening of urine; fluid-filled skin blisters; itching of the skin; light-colored stools; sensitivity to the sun; skin thinness; yellow eyes or skin); *thrombocytopenia* (black, tarry stools; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *cyanosis* (bluish color of fingernails, lips, skin, palms, or nail beds); *dehydration* (confusion; decreased urination; dizziness; dry mouth; fainting; increase in heart rate; lightheadedness; rapid breathing; sunken eyes; thirst; unusual tiredness or weakness; wrinkled skin); *encephalopathy* (agitation; back pain; blurred vision; coma; confusion; dizziness; drowsiness; fever; headache; irritability; mood or mental changes; seeing things that are not there; seizures; stiff neck; unusual tiredness or weakness; vomiting); *fracture, pathologic* (pain or swelling in arms or legs without any injury); *hyperkinesia* (increase in body movements); *hypoglycemia* (anxiety; chills; cold sweats; cool, pale skin; headache; increased hunger; nausea; nervousness; shakiness); *infection*; *seizures*; *septicemia* (chills; confusion; dizziness; lightheadedness; fainting; fast heartbeat; fever; rapid, shallow breathing); *tumor, brain* (change in personality; changes in vision; confusion; headache; problems with walking or talking; seizures; vomiting; weakness).

DIAGNOSTIC TESTS: *leukopenia*; *thrombocytopenia*; *hypoglycemia*; tyrosine levels, elevated (in individuals eating normal diets not restricted in tyrosine and phenylalanine).

Nitrates (Systemic)

Commercial name(s): *Apo-ISDN*; *Cedocard-SR*; *Coradur*; *Coronex*; *Deponit*; *Dilatrate-SR*; *IMDUR*; *ISDN*; *ISMO*; *Isordil*; *Isordil Tembids*; *Isordil Titrados*; *Minitran*; *Monoket*; *Nitro-Bid*; *Nitro-Bid IV*; *Nitro-Dur*; *Nitro-par*; *Nitro-time*; *Nitrocot*; *Nitrodisc*; *Nitrogard*; *Nitroglyn E-R*; *Nitroject*; *Nitrol*; *Nitrolingual*; *Nitrong SR*; *Nitrostat*; *Sorbitrate*; *Transderm-Nitro*; *Tridil*.

Category: Antianginal [Isosorbide Dinitrate; Isosorbide Mononitrate; Nitroglycerin]; Antihypertensive [Nitroglycerin Injection]; Vasodilator, congestive heart failure [Isosorbide Dinitrate; Nitroglycerin].

Conventional indications: Angina pectoris, acute (treatment) [sublingual, lingual, and extended-release buccal dosage forms of nitroglycerin and the sublingual and chewable dosage forms of isosorbide dinitrate]; Angina pectoris, acute (prophylaxis) [sublingual, lingual, and extended-release buccal dosage forms of nitroglycerin and the sublingual or chewable dosage forms of isosorbide dinitrate]; Angina pectoris, chronic (treatment) [regular, chewable, sublingual, and extended-release oral dosage forms of isosorbide

dinitrate; regular and extended-release oral dosage forms of isosorbide mononitrate; and extended-release oral and buccal dosage forms of nitroglycerin; Nitroglycerin injection; Nitroglycerin ointment; nitroglycerin transdermal systems]; Hypertension (treatment), or Hypotension, controlled [Nitroglycerin injection]; Myocardial infarction (treatment adjunct) [Nitroglycerin injection]; Congestive heart failure (treatment) [Nitroglycerin injection; sublingual, lingual, and topical nitroglycerin and; regular oral, chewable, and sublingual isosorbide dinitrate].

Primary Actions or Pathogenetic Symptoms

MIND: restlessness.

VERTIGO: hypotension, orthostatic (dizziness or lightheadedness, especially when getting up from a lying or sitting position); dizziness, extreme; fainting.

HEAD: headache; feeling of extreme pressure in head.

VISION: *blurred vision*.

FACE: flushing of face; bluish-colored lips.

MOUTH: *dryness*.

EXTERNAL THROAT: flushing of neck.

STOMACH: nausea; vomiting.

RESPIRATION: cyanosis; shortness of breath.

CHEST: *vasodilation* [Isosorbide Dinitrate; Nitroglycerin]; **tachycardia** (fast heartbeat); heartbeat, weak and fast.

EXTREMITIES: bluish-colored palms of hands; cyanosis.

NAILS: bluish-colored fingernails.

FEVER: fever.

SKIN: *sore, reddened skin* (topical nitroglycerin dosage forms); *rash*.

GENERALITIES: *hypotension* [Nitroglycerin Injection]; *vasodilation* [Isosorbide, Dinitrate, Nitroglycerin]; **flushing**; **hypotension, orthostatic** (dizziness or lightheadedness, especially when getting up from a lying or sitting position); **tachycardia** (fast heartbeat); convulsions; cyanosis; heartbeat, weak and fast; methemoglobinemia (pressure in head, tiredness or weakness, shortness of breath); tiredness or weakness, unusual.

DIAGNOSTIC TESTS: methemoglobinemia.

Nitric Oxide (Inhalation-Local)

Commercial name(s): *INOmax*.

Category: Antihypertensive (pulmonary).

Conventional indications: Pulmonary hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *hemorrhage, intracranial* (headache; numbness; sensation that you or surroundings are spinning; aphasia or dysarthria (speech disorder affecting pronunciation, reading, and writing skills)); *infarction, cerebral* (headache; numbness; sensation that you or surroundings are spinning; aphasia or dysarthria (speech disorder affecting pronunciation, reading, and writing skills)); *periventricular leukomalacia* (headache; numbness; sensation

that you or surroundings are spinning; aphasia or dysarthria (speech disorder affecting pronunciation, reading, and writing skills).

STOMACH: *bleeding, gastrointestinal* (black or tarry stools; blood in stools).

ABDOMEN: *bleeding, gastrointestinal* (black or tarry stools; blood in stools).

RECTUM: *bleeding, gastrointestinal* (black or tarry stools; blood in stools).

URINE: **hematuria** (blood in urine; lower back pain; pain or burning while urinating).

RESPIRATION: **stridor** (harsh, high-pitched sound during breathing).

CHEST: **hypotension, pulmonary, atelectasis** (coughing; difficult breathing); *hemorrhage, pulmonary* (coughing up blood or bloody mucus); injury, lung, acute (coughing; shortness of breath; due to exposure to increased level of nitrogen dioxide).

SKIN: **cellulitis** (swollen area that feels warm and tender).

GENERALITIES: **hyperglycemia** (drowsiness; fruit-like breath odor; increased urination; unusual thirst); **hypotension** (blurred vision; confusion dizziness, faintness, or lightheadedness when getting up from a lying or sitting position sudden; unusual sweating; tiredness or weakness); **infection and sepsis** (chills; fever; fast heartbeat); *seizures* (convulsions); methemoglobinemia (bluish-colored lips, fingernails, palms; dark urine; difficulty breathing; dizziness or lightheadedness; fatigue; fever; headache; pale skin; rapid heart rate; shortness of breath; sore throat; unusual bleeding or bruising; unusual tiredness or weakness).

DIAGNOSTIC TESTS: **hematuria**; methemoglobinemia.

Secondary Actions or Rebound Effects: **withdrawal** (chest pain; difficulty in breathing).

Nitrofurantoin (Systemic)

Commercial name(s): *Apo-Nitrofurantoin; Furadantin; Macrobid; Macrochantin; Novo-Furantoin.*

Category: Antibacterial (systemic).

Conventional indications: Urinary tract infections, bacterial (treatment); Urinary tract infections, bacterial (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; depression, mental; psychotic reactions* (mood or mental changes).

HEAD: **headache; alopecia, transient** (loss of hair, temporary); *hypertension, intracranial, benign* (loss of appetite; headache; vomiting; visual changes; bulging fontanel in infants).

EYE: *neuritis, optic* (blurred vision or loss of vision, with or without eye pain).

FACE: **angioedema** (swelling of face).

MOUTH: **angioedema** (swelling of mouth).

STOMACH: **appetite, loss of; nausea; pain; upset stomach; vomiting.**

ABDOMEN: **gas; pain, abdominal; colitis, pseudomembranous** (abdominal or stomach cramps or pain, severe; diarrhea, watery and severe, which may also be bloody; fever); *hepatotoxicity, including hepatitis, cholestatic jaundice, chronic active hepatitis, and hepatic necrosis* (yellow eyes or skin; darkening of urine; itching; abdominal or stomach pain, continuing; pale stools or black, tarry stools; headache, continuing; general feeling of

discomfort or illness; unpleasant breath odor, continuing; vomiting of blood); *pancreatitis* (severe stomach pain with nausea or vomiting).

RECTUM: diarrhea.

BLADDER: *superinfections, genitourinary tract* (with *Pseudomonas* or *Candida*).

KIDNEYS: *superinfections, genitourinary tract* (with *Pseudomonas* or *Candida*).

URETHRA: *superinfections, genitourinary tract* (with *Pseudomonas* or *Candida*).

URINE: *discoloration of urine, rust-yellow to brown.*

GENITALIA MALE: *superinfections, genitourinary tract* (with *Pseudomonas* or *Candida*).

GENITALIA FEMALE: *superinfections, genitourinary tract* (with *Pseudomonas* or *Candida*).

RESPIRATION: *cyanosis* (bluish color of skin); *dyspnea*; *pneumonitis, acute*; *pulmonary function impaired.*

COUGH: *cough.*

CHEST: *infiltration, pulmonary, with consolidation or pleural effusion on radiograph; pain, chest; pneumonitis, acute; pulmonary reactions* (fever, chills, cough, chest pain, dyspnea, pulmonary infiltration with consolidation or pleural effusion on radiograph, and eosinophilia; diffuse interstitial pneumonitis and fibrosis).

EXTREMITIES: **angioedema** (swelling of hands, or feet); **arthralgia** (joint pain); **myalgia** (muscle pain); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet); *cyanosis* (bluish color of skin).

CHILL: chills.

FEVER: fever, drug (fever, shortly after onset of therapy).

SKIN: eruptions, maculopapular, erythematous, or eczematous (skin rash); **pruritus** (itching); **urticaria** (hives); *alopecia, transient* (loss of hair, temporary); *dermatitis, exfoliative* (blistering, peeling, or loosening of skin and mucous membranes; fever; general feeling of discomfort or illness; red, thickened, or scaly skin; red skin lesions, often with a purple center).

GENERALITIES: anaphylaxis (shortness of breath; swelling of face; changes in facial skin color); **angioedema** (sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet; hoarseness); **arthralgia** (joint pain); **hypersensitivity reactions** (anaphylaxis; angioedema; arthralgia; chills; drug fever; maculopapular, erythematous, or eczematous eruptions; myalgia; pruritus; urticaria); **myalgia** (muscle pain); *anemia, megaloblastic* (unusual tiredness or weakness); *granulocytopenia* (sore throat and fever); *leukopenia* (sore throat and fever); *neurotoxicity* (dizziness; drowsiness; headache; unusual tiredness or weakness); *thrombocytopenia* (rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *alopecia, transient* (loss of hair, temporary); *anemia, aplastic* (shortness of breath, troubled breathing, wheezing, or tightness in chest; sores, ulcers, or white spots on lips or in mouth; swollen or painful glands; unusual bleeding or bruising); *anemia, hemolytic* (pale skin; unusual tiredness or weakness); *cyanosis* (bluish color of skin); *demyelination and degeneration of both sensory and motor nerves*; *eosinophilia*; *erythema multiforme* (blistering, peeling, or loosening of skin and mucous membranes; fever; general feeling of discomfort or illness; red, thickened, or scaly skin; red skin lesions, often with a purple center); *hepatotoxicity, including hepatitis, cholestatic jaundice, chronic active hepatitis, and hepatic necrosis* (yellow eyes

or skin; darkening of urine; itching; abdominal or stomach pain, continuing; pale stools or black, tarry stools; headache, continuing; general feeling of discomfort or illness; unpleasant breath odor, continuing; vomiting of blood); *methemoglobinemia*; *Stevens-Johnson syndrome* (blistering, peeling, or loosening of skin and mucous membranes; fever; general feeling of discomfort or illness; red, thickened, or scaly skin; red skin lesions, often with a purple center).

DIAGNOSTIC TESTS: *anemia, megaloblastic*; *granulocytopenia*; *leukopenia*; *thrombocytopenia*; *anemia, aplastic*; *anemia, hemolytic*; *discoloration of urine, rust-yellow to brown*; *ECG, changes in* (nonspecific ST/T wave changes or bundle branch block); *eosinophilia*; *methemoglobinemia*.

Nitrofurazone (Topical)

Commercial name(s): *Furacin Soluble Dressing*; *Furacin Topical Cream*; *Furacin Topical Solution*.

Category: Burns (treatment).

Conventional indications: Skin infections (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *dermatitis, contact* (itching; rash; swelling).

Nitroprusside (Systemic)

Commercial name(s): *Nipride*; *Nitropress*.

Category: Antihypertensive; Vasodilator, congestive heart failure; Myocardial infarction therapy adjunct; Antidote (to ergot alkaloid poisoning).

Conventional indications: Congestive heart failure (treatment); Hypertension (treatment); Hypotension, controlled (induction and maintenance); Hypertension, paroxysmal, in surgery for pheochromocytoma (treatment); Myocardial infarction (treatment adjunct); Valvular regurgitation (treatment adjunct); Toxicity, ergot alkaloid (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety*; *coma*; *consciousness, loss of*; *delirium*; *nervousness*; *restlessness*.

VERTIGO: *dizziness*.

HEAD: *pressure, intracranial, increased* (rebound effect?); *headache*.

EYE: *pupils, widely dilated*.

VISION: *blurred vision*.

HEARING: *tinnitus* (ringing in ears).

EXTERNAL THROAT: *hypothyroidism*.

STOMACH: *nausea*; *retching*; *vomiting*.

ABDOMEN: *ileus*; *pain, abdominal* (stomach pain).

RESPIRATION: *shortness of breath*; *very shallow breathing*.

CHEST: *heart sounds, distant*; *tachycardia*, *reflex*.

EXTREMITIES: *ataxia*; *twitching*, *muscle*.

PERSPIRATION: *sweating, excessive.*

SKIN: *flushing; rash; pink color.*

GENERALITIES: *hypotension; vasodilation; flushing; hypothyroidism; pain at site of injection; redness at site of injection; acidosis, metabolic; coma; cyanide toxicity (absence of reflexes; coma; distant heart sounds; hypotension; imperceptible pulse; metabolic acidosis; pink color; very shallow breathing; widely dilated pupils); heart sounds, distant; hypotension; neurotoxicity, mild (tinnitus, miosis, hyperreflexia); pulse, imperceptible; reflexes, absence of; tachycardia, reflex; thiocyanate toxicity (ataxia; blurred vision; delirium; dizziness; headache; loss of consciousness; nausea and vomiting; shortness of breath; tinnitus); twitching, muscle.*

DIAGNOSTIC TESTS: *acidosis, metabolic; methemoglobinemia.*

Secondary Actions or Rebound Effects: *hypertension, rebound.*

Norelgestromin and Ethinyl Estradiol (Systemic)

Commercial name(s): *Ortho Evra.*

Category: Contraceptive, systemic.

Conventional indications: Pregnancy, prevention of.

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping).*

HEAD: *headache; hemorrhage, cerebral (blurred vision; headache sudden and severe; inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe); migraine (headache, severe and throbbing); stroke, increased risk of; thrombosis, cerebral (confusion; numbness of hands).*

EYE: *corneal curvature, steepening of (vision changes); intolerance to contact lenses; thrombosis, retinal (change in vision; eye pain).*

STOMACH: *nausea; vomiting.*

ABDOMEN: *pain, abdominal; adenomas, hepatic (swelling, pain, or tenderness in upper abdominal area); bloating; cramps, abdominal; gallbladder disease (pain in abdomen); thrombosis, mesenteric (pain in lower abdomen); tumors, liver, benign (swelling, pain, or tenderness in upper abdominal area).*

GENITALIA FEMALE: *contraceptive (inhibition of the ovulation); cramps, menstrual; amenorrhea (absent missed or irregular menstrual periods; stopping of menstrual bleeding); bleeding, breakthrough (unusual vaginal bleeding); candidiasis, vaginal (itching of the vagina or outside genitals; pain during sexual intercourse; thick, white curd-like vaginal discharge without odor or with mild odor); erosion, cervical, change in (light vaginal bleeding between periods and after intercourse); infertility, temporary after discontinuation of treatment (trouble getting pregnant); menstrual flow, change in; secretion, cervical, change in (change in amount of vaginal discharge; bloody vaginal discharge); spotting (light vaginal bleeding between regular menstrual periods).*

RESPIRATION: infection, upper respiratory (body aches or pain; chills; cough; difficulty in breathing; ear congestion; fever; headache; loss of voice; nasal congestion; runny nose; sneezing; sore throat; unusual tiredness or weakness).

CHEST: breast symptoms (pain; soreness; swelling; or discharge from the breast or breasts); *breast changes* (tenderness or enlargement of the breasts); *embolism, pulmonary* (anxiety; chest pain; cough; dizziness or lightheadedness; fainting; fast heartbeat; sudden shortness of breath or troubled breathing); *infarction, myocardial* (chest pain or discomfort; nausea; pain or discomfort in arms, jaw, back or neck; shortness of breath; sweating); *lactation, diminution in when given immediately postpartum* (decreased amount of breast milk); *secretion from the breasts*.

SKIN: melasma which may persist (brown, blotchy spots on exposed skin); *rash*.

GENERALITIES: application site reaction (burning; itching; redness; skin rash; swelling or soreness at patch site); **infection, upper respiratory** (body aches or pain; chills; cough; difficulty in breathing; ear congestion; fever; headache; loss of voice; nasal congestion; runny nose; sneezing; sore throat; unusual tiredness or weakness); *adenomas, hepatic* (swelling, pain, or tenderness in upper abdominal area); *death, increased risk of; edema* (swelling); *hypertension* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); *infarction, myocardial* (chest pain or discomfort; nausea; pain or discomfort in arms, jaw, back or neck; shortness of breath; sweating); *jaundice, cholestatic* (abdominal or stomach pain; chills; light-colored stools; dark urine; diarrhea; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *thromboembolism, arterial* (difficulty breathing; pain in chest, groin, or legs, especially the calves; slurred speech; sudden headache; sudden loss of coordination; sudden, severe weakness or numbness in arm or leg; sudden, unexplained shortness of breath; vision changes); *thrombophlebitis and venous thrombosis with or without embolism* (changes in skin color, pain, tenderness, or swelling of foot or leg); *tolerance to carbohydrates, reduced* (blurred vision; dry mouth; increased hunger or thirst; increased urination); *tumors, liver, benign* (swelling, pain, or tenderness in upper abdominal area); *weight, increase or decrease in*.

Norfloxacin (Ophthalmic)

Commercial name(s): Chibroxin; Noroxin.

Category: Antibacterial (ophthalmic).

Conventional indications: Conjunctivitis, bacterial (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: burning; discomfort; chemosis (swelling of the membrane covering the white part of the eye); *hyperemia, conjunctival* (redness of the lining of the eyelids); *photophobia* (increased sensitivity of eye to light).

MOUTH: taste, bitter, following instillation.

SKIN: rash.

GENERALITIES: hypersensitivity (allergic reaction).

Nylidrin (Systemic)

Commercial name(s): *Arlidin; Arlidin Forte; PMS Nylidrin.*

Category: Vasospastic therapy adjunct.

Conventional indications: Vascular disease, peripheral (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness.*

VERTIGO: *dizziness.*

HEAD: *headache.*

VISION: blurred vision.

FACE: *flushing of face; redness of face.*

MOUTH: taste, metallic.

STOMACH: *nausea; vomiting.*

BLADDER: inability to urinate; urination, decrease in.

CHEST: *heartbeat, fast or irregular;* pain, chest.

CHILL: *chilliness.*

FEVER: fever.

GENERALITIES: *vasodilation; anemia* (continuing tiredness or weakness); *heartbeat, fast or irregular; trembling.*

Nystatin (Oral-Local)

Commercial name(s): *Mycostatin; Nadostine; Nilstat; Nystex; PMS Nystatin.*

Category: Antifungal (oral-local).

Conventional indications: Candidiasis, oropharyngeal (treatment) [Nystatin lozenges (pastilles), nystatin oral suspension, and nystatin for oral suspension]; Candidiasis, oropharyngeal (prophylaxis) [Nystatin oral suspension, lozenges (pastilles), and nystatin for oral suspension].

Primary Actions or Pathogenetic Symptoms

STOMACH: *nausea; pain; vomiting.*

RECTUM: *diarrhea.*

Nystatin (Topical)

Commercial name(s): *Mycostatin; Nadostine; Nilstat; Nyaderm; Nystex; Nystop; Pedi-Dri.*

Category: Antifungal (topical).

Conventional indications: Candidiasis, cutaneous (treatment); Candidiasis, mucocutaneous (treatment); Tinea barbae (treatment); Tinea capitis (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *irritation not present before therapy*

Nystatin (Vaginal)

Commercial name(s): *Mycostatin; Nadostine; Nilstat; Nyaderm.*

Category: Antifungal (vaginal).

Conventional indications: Candidiasis, vulvovaginal (treatment); Candidiasis, oropharyngeal (treatment).

Primary Actions or Pathogenetic Symptoms

GENITALIA FEMALE: *irritation, vaginal, not present before therapy* (vaginal burning or itching).

Nystatin and Triamcinolone (Topical)

Commercial name(s): *Dermacomb; Myco II; Myco-Triacet II; Mycobiotic II; Mycogen II; Mycolog II; Mykacet; Mykacet II; Mytrex; Tristatin II.*

Category: Antifungal-corticosteroid (topical).

Conventional indications: Candidiasis, cutaneous (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *hair growth, increased* (with prolonged use); *hair, loss of, increased, especially on the scalp* (with prolonged use).

FACE: *hair growth, increased, especially on the face* (with prolonged use); *reddish purple lines on face* (with prolonged use).

ABDOMEN: *reddish purple lines on trunk* (with prolonged use).

GENITALIA MALE: *reddish purple lines on groin* (with prolonged use).

GENITALIA FEMALE: *reddish purple lines on groin* (with prolonged use).

CHEST: *reddish purple lines on trunk* (with prolonged use).

BACK: *reddish purple lines on trunk* (with prolonged use).

EXTREMITIES: *reddish purple lines on arms, legs* (with prolonged use).

SKIN: *acne* (with prolonged use); *atrophy, skin* (thinning of skin with easy bruising) (with prolonged use); *hair growth, increased* (with prolonged use); *hair, loss of, increased* (with prolonged use); *oily skin* (with prolonged use).

GENERALITIES: *adrenal suppression, risk of* (with prolonged use); *hair growth, increased* (with prolonged use); *hair, loss of, increased* (with prolonged use); *hypersensitivity* (blistering, burning, dryness, itching, peeling, or other sign of irritation not present before therapy).

Octreotide (Systemic)

Commercial name(s): *Sandostatin; Sandostatin LAR Depot.*

Category: Antidiarrheal (gastrointestinal tumor; acquired immunodeficiency syndrome [AIDS]); Growth hormone suppressant (acromegaly); Antihemorrhagic (bleeding gastroesophageal varices); Antihypotensive (carcinoid crisis); Antihypoglycemic (pancreatic tumor).

Conventional indications: Tumors, gastrointestinal (treatment adjunct); Acromegaly (treatment); Pancreatic surgery, complications of (prophylaxis); Varices, gastroesophageal, bleeding (treatment); Hypotension (treatment); Tumors, pancreatic (treatment adjunct); Diarrhea, acquired immunodeficiency syndrome (AIDS)–associated (treatment); Diarrhea, chemotherapy–induced (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping).

VERTIGO: *dizziness; lightheadedness.*

HEAD: *alopecia.*

VISION: *blurred vision; visual disturbance* (blurred or loss of vision; disturbed color perception; night blindness; double vision; tunnel vision; halos around lights; overbright appearance of lights).

FACE: *flushing of face; redness of face.*

EXTERNAL THROAT: **goiter** (changes in menstrual periods; decreased sexual ability in males; dry, puffy skin; feeling cold; swelling of front part of neck; weight gain); **hypothyroidism** (constipation; depressed mood; dry skin and hair; feeling cold; hair loss; hoarseness or husky voice; muscle cramps and stiffness; slowed heartbeat; weight gain; unusual tiredness or weakness).

STOMACH: **discomfort; nausea; pain; vomiting;** *pain, epigastric, severe;* feeling empty in stomach.

ABDOMEN: **discomfort; flatulence; pain;** *malabsorption, fat* (stools that float, foul smelling and fatty in appearance); *pancreatitis, acute* (abdominal pain or distension; nausea; vomiting); *biliary sludge; distension, abdominal, progressive; gallstone formation; tenderness and guarding, abdominal;* cramps, abdominal.

RECTUM: **constipation; diarrhea.**

BLADDER: *pollakiuria* (frequent urination usually with very small amounts of urine); *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

CHEST: **arrhythmias** (irregular heartbeat); **bradycardia** (slow heartbeat); heart rate, decrease in.

BACK: *bachache.*

EXTREMITIES: *edema* (swelling of feet or lower legs); *pain, joint.*

FEVER: *fever.*

SKIN: *alopecia; pruritus* (itching skin).

GENERALITIES: *coagulation; growth hormone suppressant* (acromegaly); *hyperglycemia* (blurred vision; drowsiness; dry mouth; flushed, dry skin; fruit-like breath odor; increased urination [frequency and volume]; ketones in urine; loss of appetite; stomachache, nausea, or vomiting; tiredness; troubled breathing [rapid and deep]; unconsciousness; unusual thirst); *hypertension; arrhythmias* (irregular heartbeat); *bradycardia* (slow heartbeat); *goiter* (changes in menstrual periods; decreased sexual ability in males; dry, puffy skin; feeling cold; swelling of front part of neck; weight gain); *hypothyroidism* (constipation; depressed mood; dry skin and hair; feeling cold; hair loss; hoarseness or husky voice; muscle cramps and stiffness; slowed heartbeat; weight gain; unusual tiredness or weakness); **pain, stinging, tingling, or burning sensation at injection site, with redness and swelling;** *alopecia; cold symptoms* (runny nose; sore throat); *fatigue; flu symptoms* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *hypoglycemia* (anxiety; behavior change similar to drunkenness; blurred vision; cold sweats; coma; confusion; cool, pale skin; difficulty in concentrating; drowsiness; excessive hunger; fast heartbeat; headache; nausea; nervousness; nightmares; restless sleep; seizures; shakiness; slurred speech; unusual tiredness or weakness); *malabsorption, fat* (stools that float, foul smelling and fatty in appearance); *pain, joint; weakness, unusual; hepatitis, acute, without cholestasis; hyperbilirubinemia, slow development of.*

DIAGNOSTIC TESTS: *hypoglycemia; gallstone formation; hyperbilirubinemia, slow development of.*

Ofloxacin (Ophthalmic)

Commercial name(s): *Ocuflox.*

Category: Antibacterial (ophthalmic).

Conventional indications: Conjunctivitis, bacterial (treatment); Corneal ulcers, bacterial (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

EYE: *burning; conjunctivitis, chemical* (redness, irritation, or itching of eye, eyelid, or inner lining of eyelid); *dryness; itching; keratitis, chemical* (redness, irritation, or itching of eye, eyelid, or inner lining of eyelid); *pain, eye; photophobia* (increased sensitivity of eye to light); *redness; sensation, foreign body* (feeling of something in the eye); *stinging; tearing.*

VISION: *blurred vision.*

FACE: *edema, periocular or facial* (swelling or puffiness of eye or face).

SKIN: *necrolysis, epidermal, toxic.*

GENERALITIES: *hypersensitivity reactions, serious and occasionally fatal* (itching, rash, or hives; swelling of face or lips; tightness in chest or wheezing; troubled breathing; cardiovascular collapse, loss of consciousness, angioedema (including laryngeal,

pharyngeal, or facial edema), airway obstruction, dyspnea, urticaria); *overgrowth of nonsusceptible organisms, including fungi* (prolonged use); *Stevens-Johnson syndrome*.

Ofloxacin (Otic)

Commercial name(s): *Floxin Otic*.

Category: Antibacterial (otic).

Conventional indications: Otitis externa (treatment); Otitis media, acute (treatment); Otitis media, chronic suppurative (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *consciousness, loss of*.

VERTIGO: *dizziness; vertigo*.

HEAD: *headache*.

EAR: *earache; otorrhagia* (bleeding from the ear).

HEARING: *tinnitus* (ringing in the ear).

NOSE: *rhinitis* (runny or stuffy nose); *sinusitis* (runny or stuffy nose).

FACE: *angioedema* (facial edema).

MOUTH: *taste, change in*.

THROAT: *angioedema* (pharyngeal edema); *pharyngitis* (sore throat).

LARYNX AND TRACHEA: *angioedema* (laryngeal edema).

RESPIRATION: *airway obstruction; dyspnea*.

CHEST: *tachycardia* (fast heartbeat).

EXTREMITIES: *numbness; tingling; lesions or erosions of the cartilage in weight-bearing joints and other signs of arthropathy* (in immature animals of various species).

FEVER: *fever*.

SKIN: *itching; urticaria*.

GENERALITIES: *application site reaction* (burning, itching, redness, skin rash, swelling, or other sign of irritation not present before use of this medicine); *numbness; tingling; angioedema* (including laryngeal, pharyngeal, or facial edema); *collapse, cardiovascular; hypersensitivity (anaphylactic) reactions, fatal; tachycardia* (fast heartbeat).

DIAGNOSTIC TESTS: *tachycardia* (fast heartbeat).

Olanzapine (Systemic)

Commercial name(s): *Zyprexa; Zyprexa Intramuscular; Zyprexa Zydis*.

Category: Antipsychotic.

Conventional indications: Agitation associated with schizophrenia and bipolar/mania (treatment) [Olanzapine intramuscular]; Bipolar disorder (treatment) [Oral olanzapine]; Schizophrenia (treatment) [Oral olanzapine].

Primary Actions or Pathogenetic Symptoms

MIND: *akathisia* (restlessness or need to keep moving); **personality disorder** (nonaggressive objectionable behavior); *amnesia; anxiety; apathy* (lack of feeling or

emotion; uncaring); confusion (mood or mental changes); euphoria; hostility; impairment, articulation (speaking unclearly); mood or mental changes; nervousness; stuttering; coma, diabetic; speech, slurred.

VERTIGO: dizziness; **gait, abnormal** (change in walking and balance, clumsiness, or unsteadiness); **hypotension, postural** (dizziness or fainting when getting up suddenly from a lying or sitting position).

HEAD: headache.

EYE: inability to move eyes; angioedema (large, hive-like swelling on eyelids).

VISION: amblyopia (problems with vision); abnormal vision (changes in vision); diplopia (double vision).

NOSE: rhinitis (runny nose).

FACE: movement disorder (unusual or incomplete body or facial movements); spasms, muscles of face; angioedema (large, hive-like swelling on face, lips); edema, facial (swelling of face).

MOUTH: difficulty in speaking; dryness; **speech disorder** (difficulty in speaking); buccoglossal syndrome; impairment, articulation (speaking unclearly); salivation, increased (watering of mouth); stuttering; angioedema (large, hive-like swelling on tongue); speech, slurred.

THROAT: difficulty in swallowing; pharyngitis (sore throat); angioedema (large, hive-like swelling on throat).

EXTERNAL THROAT: spasms, muscles of neck.

STOMACH: dyspepsia (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); appetite, increased; nausea; thirst; vomiting.

ABDOMEN: pain, abdominal; pancreatitis (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: constipation.

BLADDER: incontinence, urinary (trouble in controlling urine).

KIDNEYS: failure, renal, acute.

URINE: myoglobinuria (rhabdomyolysis).

GENITALIA MALE: angioedema (large, hive-like swelling on sex organs); libido, decreased (decrease in sexual desire); priapism (painful or prolonged erection of the penis).

GENITALIA FEMALE: dysmenorrhea (pain; cramps; heavy bleeding); vaginitis (itching of the vagina or genital area; pain during sexual intercourse; thick, white vaginal discharge with no odor or with a mild odor); angioedema (large, hive-like swelling on sex organs); libido, decreased (decrease in sexual desire); menstrual changes.

RESPIRATION: dyspnea (trouble in breathing).

COUGH: cough, increased.

CHEST: pain, chest; tachycardia (fast heartbeat); extrasystoles, ventricular (extra heartbeat); palpitation (awareness of heartbeat).

BACK: spasms, muscles of back.

EXTREMITIES: akathisia (restlessness or need to keep moving); **stiffness of arms or legs; trembling or shaking of hands and fingers**; edema, peripheral (swelling of feet or ankles); hypertonia (tightness of muscles); movement disorder (unusual or incomplete body or facial movements); myoclonus (muscle twitching or jerking; rhythmic movement of

muscles); *pain, extremity (other than joint)* (pain in arms or legs); *pain, joint*; *twitching*; *angioedema* (large, hive-like swelling on hands, legs, feet); *rhabdomyolysis*.

SLEEP: *drowsiness*; *somnolence* (sleepiness or unusual drowsiness); *insomnia* (trouble in sleeping).

FEVER: *fever*; *temperature regulation, body, disturbances of*.

PERSPIRATION: *sweating*.

SKIN: *acne* (blemishes on the skin; pimples); *dryness*; *photosensitivity* (increased sensitivity of skin to sunlight); *pruritus* (itching skin); *rash*; *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *asthenia* (weakness); **extrapyramidal effects, parkinsonism** (difficulty in speaking or swallowing; stiffness of arms or legs; trembling or shaking of hands and fingers); **hypotension, postural** (dizziness or fainting when getting up suddenly from a lying or sitting position); **tremor** (trembling or shaking); **weight, increased**; *buccoglossal syndrome*; *edema* (swelling); *extrapyramidal effects, dystonic* (inability to move eyes; muscle spasms of face, neck, and back; twitching movements); *flu-like symptoms*; *hypertension* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); *hypertonia* (tightness of muscles); *hypotension* (low blood pressure); *injury, accidental*; *movement disorder* (unusual or incomplete body or facial movements); *myoclonus* (muscle twitching or jerking; rhythmic movement of muscles); *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *tachycardia* (fast heartbeat); *twitching*; *weight loss*; *anaphylactoid reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *coma, diabetic*; *creatine kinase, elevated*; *extrasystoles, ventricular* (extra heartbeat); *neuroleptic malignant syndrome (NMS), potentially fatal* (hyperpyrexia, muscle rigidity, altered mental status, and autonomic instability seen as irregular pulse or blood pressure, tachycardia, diaphoresis, and cardiac dysrhythmia); *palpitation* (awareness of heartbeat); *rhabdomyolysis*; *water intoxication* (confusion; mental or physical sluggishness).

DIAGNOSTIC TESTS: *creatine kinase, elevated*, *myoglobinuria*; *water intoxication*; *extrasystoles, ventricular*.

Secondary Actions or Rebound Effects: *agitation*; *choreoathetosis* (restlessness or agitation; uncontrolled jerking or twisting movements of hands, arms, or legs; uncontrolled movements of lips, tongue, or cheeks); *dyskinesia* (twitching, twisting, uncontrolled repetitive movements of tongue, lips, face, arms, or legs); *tardive dyskinesia* (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs); *neuroleptic malignant syndrome (NMS), potentially fatal* (hyperpyrexia, muscle rigidity, altered mental status, and autonomic instability seen as irregular pulse or blood pressure, tachycardia, diaphoresis, and cardiac dysrhythmia).

Olmesartan (Systemic)

Commercial name(s): *Benicar*.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*; *vertigo* (dizziness or lightheadedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: *headache*.

EYE: *angioedema* (large, hive-like swelling on eyelids).

NOSE: *rhinitis* (stuffy nose; runny nose; sneezing); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

FACE: *angioedema* (large, hive-like swelling on face, lips); *edema, facial* (swelling or puffiness of face).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); *angioedema* (large, hive-like swelling on throat).

STOMACH: *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); *gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *nausea*; *pain, abdominal* (stomach pain).

ABDOMEN: *gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *pain, abdominal* (stomach pain).

RECTUM: *diarrhea*.

BLADDER: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

URINE: *hematuria* (blood in urine).

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *infection, upper respiratory tract* (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

COUGH: *cough*.

CHEST: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *pain, chest*; *tachycardia* (fast, pounding, or irregular heartbeat or pulse); *bradycardia* (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness).

BACK: *pain, back*.

EXTREMITIES: *angioedema* (large, hive-like swelling on hands, legs, feet); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *arthritis* (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of

hands or feet; unusual weight gain or loss); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *pain, skeletal*; *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness).

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep).

SKIN: *rash*.

GENERALITIES: *hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); *hyperglycemia* (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); *hypertriglyceridemia*; *infection, upper respiratory tract* (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *influenza-like symptoms* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *arthritis* (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); *fatigue* (unusual tiredness or weakness); *hypercholesterolemia*; *hyperlipemia* (large amount of fat in the blood); *hyperuricemia* (joint pain, stiffness, or swelling; lower back, side, or stomach pain; swelling of feet or lower legs); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *pain; pain, skeletal*; *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); bradycardia (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness).

DIAGNOSTIC TESTS: *hematuria*; *hyperglycemia*; *hypertriglyceridemia*; *hypercholesterolemia*; *hyperlipemia*; *hyperuricemia*.

Olmesartan and Hydrochlorothiazide (Systemic)

Commercial name(s): *Benicar HCT*.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*; *hypotension, postural* (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position);

Materia Medica - Letter O

lightheadedness; *syncope* (fainting); *vertigo* (dizziness or lightheadedness; feeling of constant movement of self or surroundings; sensation of spinning).

FACE: *edema, facial* (swelling or puffiness of face).

STOMACH: *nausea*; *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); *gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness).

ABDOMEN: *gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *pain, abdominal*.

RECTUM: *diarrhea*.

BLADDER: *oliguria* (decrease in amount of urine).

URINE: *hematuria* (blood in urine).

RESPIRATION: **infection, upper respiratory tract** (chest pain; chills; cough; ear congestion or pain; fever; head congestion; hoarseness or other voice changes; nasal congestion; runny nose; sneezing; sore throat).

COUGH: *cough*.

CHEST: *pain, chest*; bradycardia due to vagal stimulation; tachycardia.

BACK: *pain, back*.

EXTREMITIES: *arthralgia* (joint pain; muscle pain or stiffness; difficulty in moving); *arthritis* (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss).

SKIN: *rash*.

GENERALITIES: *hypotension*; **infection, upper respiratory tract** (chest pain; chills; cough; ear congestion or pain; fever; head congestion; hoarseness or other voice changes; nasal congestion; runny nose; sneezing; sore throat); *hyperuricemia* (joint pain, stiffness, or swelling; lower back, side, or stomach pain; swelling of feet or lower legs); *arthralgia* (joint pain; muscle pain or stiffness; difficulty in moving); *arthritis* (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); *azotemia* (bloody or cloudy urine; pain in lower back or side; thirst; dry mouth; dizziness); *creatinine phosphokinase increased*; *electrolyte imbalance* (confusion; irregular heartbeat; muscle cramps or pain; numbness, tingling, pain, or weakness in hands or feet; seizures; trembling; unusual tiredness or weakness; weakness and heaviness of legs); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); *hyperglycemia* (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); *hyperkalemia* (abdominal pain; confusion; irregular heartbeat; nausea or vomiting; nervousness; numbness or tingling in hands, feet, or lips; shortness of breath; difficult breathing; weakness or heaviness of legs); *hyperlipidemia* (large amount of fat in the blood); *hypokalemia* (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); *hypotension, postural* (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position); bradycardia due to vagal stimulation; dehydration; tachycardia.

DIAGNOSTIC TESTS: *hyperuricemia; azotemia; creatine phosphokinase increased; electrolyte imbalance; hematuria; hyperglycemia; hyperkalemia; hypokalemia; electrolyte depletion.*

Olopatadine (Ophthalmic)

Commercial name(s): *Patanol.*

Category: Antihistaminic (H₁-receptor), ophthalmic; Mast cell stabilizer, ophthalmic; Antiallergic, ophthalmic.

Conventional indications: Conjunctivitis, allergic (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache.*

EYE: *burning; dryness; edema, lid* (swelling of eyelid); *feeling of something in the eye; hyperemia* (redness of eye or inside of eyelid); *itching; keratitis* (eye redness, irritation, or pain); *stinging.*

VISION: *blurred vision.*

NOSE: *rhinitis* (stuffy or runny nose); *sinusitis* (headache or runny nose).

MOUTH: *taste, change in.*

THROAT: *pharyngitis* (sore throat).

STOMACH: *nausea.*

COUGH: *cough, increased.*

BACK: *pain, back.*

GENERALITIES: *cold-like symptoms* (sore throat and runny nose); *asthenia* (unusual tiredness or weakness); *flu syndrome* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *pain; sinusitis* (headache or runny nose).

Olsalazine (Oral-Local)

Commercial name(s): *Dipentum.*

Category: Bowel disease (inflammatory) suppressant.

Conventional indications: Bowel disease, inflammatory (prophylaxis); Bowel disease, inflammatory (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; depression.*

VERTIGO: *dizziness.*

HEAD: *headache.*

STOMACH: *appetite, loss of; nausea; pain; upset stomach; vomiting.*

ABDOMEN: *pancreatitis* (back or stomach pain, severe; fast heartbeat; fever; nausea or vomiting; swelling of the stomach).

RECTUM: *diarrhea* (watery appearance and absence of blood).

EXTREMITIES: *aching joints and muscles.*

SLEEP: *drowsiness; insomnia* (trouble in sleeping).

SKIN: *acne.*

GENERALITIES: *aching joints and muscles; hepatitis* (yellow eyes or skin).

Secondary Actions or Rebound Effects: *colitis, ulcerative, exacerbation of* (bloody diarrhea; fever; skin rash).

Omalizumab (Systemic)

Commercial name(s): *Xolair.*

Category: Antiasthmatic; Monoclonal antibody.

Conventional indications: Asthma, persistent, moderate to severe (prophylaxis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

EAR: *earache.*

NOSE: *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

RESPIRATION: *infection, upper respiratory tract* (cough; sore throat).

EXTREMITIES: *arthralgia* (muscle or joint pain); **pain, leg;** *pain, arm.*

SKIN: *dermatitis* (blistering, crusting, irritation, itching, or reddening of skin; cracked, dry, scaly skin; swelling); *pruritus* (itching skin).

GENERALITIES: *arthralgia* (muscle or joint pain); **infection, upper respiratory tract** (cough; sore throat); **infections, viral** (chills; cough or hoarseness; fever; cold or flu-like symptoms); **injection site reaction** (bleeding; blistering; burning; coldness; discoloration of skin; feeling of pressure; hives; infection; inflammation; itching; lumps; numbness; pain; rash; redness; scarring; soreness; stinging; swelling; tenderness; tingling; ulceration; warmth); **pain; sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *fatigue* (unusual tiredness or weakness); *immunogenicity* (body produces substances that can bind to drug making it less effective or cause side effects); *anaphylaxis* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *neoplasm, malignant, various types.*

Omega-3-Acid Ethyl Esters (Systemic)

Commercial name(s): *Omacor*.

Category: Antihyperlipidemic.

Conventional indications: Hypertriglyceridemia (treatment).

Primary Actions or Pathogenetic Symptoms

MOUTH: taste perversion (change in taste bad unusual or unpleasant (after)taste).

STOMACH: eructation (belching; bloated full feeling; excess air or gas in stomach).

RESPIRATION: dyspnea (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: angina pectoris (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea).

BACK: pain, back.

SKIN: rash.

GENERALITIES: flu syndrome (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); infection (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); pain.

DIAGNOSTIC TESTS: hypolipidemia.

Omeprazole (Systemic)

Commercial name(s): *Losec; Prilosec; Zegerid*.

Category: Gastric acid pump inhibitor; Antiulcer agent.

Conventional indications: Dyspepsia (treatment); Gastroesophageal reflux disease [GERD] (prophylaxis and treatment); Hypersecretory conditions, gastric (treatment); Zollinger-Ellison syndrome (treatment); Mastocytosis, systemic (treatment); Adenoma, multiple endocrine (treatment); Ulcer, peptic (treatment); Ulcer, duodenal (treatment); Ulcer, peptic, *Helicobacter pylori*-associated (treatment adjunct); Upper gastrointestinal hemorrhage (prophylaxis); Ulcer, peptic, nonsteroidal anti-inflammatory drug-induced (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: confusion.

VERTIGO: dizziness.

HEAD: headache.

VISION: blurred vision.

MOUTH: dryness.

STOMACH: nausea; vomiting; polyps, gastric fundic gland; nausea.

ABDOMEN: colic, abdominal, pain, abdominal; flatulence (gas).

RECTUM: constipation; diarrhea.

STOOL: loose stools.

BLADDER: infection, urinary tract (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate).

KIDNEYS: *infection, urinary tract* (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate).

URINE: *hematuria* (bloody urine); *proteinuria* (cloudy urine).

RESPIRATION: *infection, upper respiratory (URI)* (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

COUGH: *cough*.

CHEST: *pain, chest*; tachycardia (fast or irregular heartbeat).

BACK: *pain, back*.

EXTREMITIES: *aches, muscle*.

SLEEP: *somnolence* (unusual drowsiness); drowsiness.

PERSPIRATION: diaphoresis (increased sweating).

SKIN: *itching, rash, erythema multiforme* (blisters on palms of hands and soles of feet; fever; general feeling of discomfort or illness; joint pain; redness of skin); *necrolysis, epidermal, toxic, sometimes fatal* (blisters; chills; fever; general feeling of discomfort or illness; muscle aches; red or irritated eyes; redness, tenderness, itching, burning, or peeling of skin; sore throat; sores or ulcers on lips or in mouth); flushing.

GENERALITIES: *asthenia* (muscle pain; unusual tiredness); *infection, upper respiratory (URI)* (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *tiredness, unusual; agranulocytosis, sometimes fatal* (chills; fever; sore throat; unusual tiredness or weakness); *anemia* (unusual tiredness or weakness); *anemia, hemolytic* (back, leg, or stomach pain; loss of appetite; unusual tiredness or weakness); *erythema multiforme* (blisters on palms of hands and soles of feet; fever; general feeling of discomfort or illness; joint pain; redness of skin); *leukocytosis* (sore throat and fever); *neutropenia* (continuing ulcers or sores in mouth); *Stevens-Johnson syndrome* (bleeding or crusting sores on lips; chills; fever; flushing; hypernatremia [Omeprazole powder for oral suspension]; hypocalcemia [Omeprazole powder for oral suspension]; hypokalemia [Omeprazole powder for oral suspension]; muscle cramps; pain; skin rash or itching; sore throat; sores, ulcers, or white spots on lips, in mouth, or on genitals); malaise (general feeling of discomfort or illness); seizures [Omeprazole powder for oral suspension]; tachycardia (fast or irregular heartbeat).

DIAGNOSTIC TESTS: *agranulocytosis, sometimes fatal; anemia; anemia, hemolytic; hematuria; leukocytosis; neutropenia; proteinuria; hypernatremia* [Omeprazole powder for oral suspension]; *hypocalcemia* [Omeprazole powder for oral suspension]; *hypokalemia* [Omeprazole powder for oral suspension].

Secondary Actions or Rebound Effects: *regurgitation, acid* (heartburn); *carcinoids, gastroduodenal* (in patients with Zollinger-Ellison syndrome).

Ondansetron (Systemic)

Commercial name(s): *Zofran; Zofran ODT*.

Category: Antiemetic.

Conventional indications: Nausea and vomiting, cancer chemotherapy-induced (prophylaxis); Nausea and vomiting, postoperative (prophylaxis); Nausea and vomiting, radiotherapy-induced (prophylaxis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness; lightheadedness; syncope* (fainting).

HEAD: *headache.*

EYE: *angioedema* (large, hive-like swelling on eyelids); *oculogyric crisis* (fixed position of the eye).

VISION: blindness, sudden (*amaurosis*) [intravenous ondansetron].

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *dryness; angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

STOMACH: *cramps, stomach.*

ABDOMEN: *pain, abdominal.*

RECTUM: *constipation; diarrhea.*

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

LARYNX AND TRACHEA: *edema, laryngeal* (coughing; difficulty in breathing; difficulty in swallowing; hoarseness; shortness of breath; slow or irregular breathing; tightness in chest; wheezing); *laryngospasm* (shortness of breath; trouble in breathing; tightness in chest; wheezing).

RESPIRATION: *arrest, cardiopulmonary* (no pulse or blood pressure; no breathing; unconscious; heart stops); *bronchospasm* (shortness of breath, tightness in chest, troubled breathing, or wheezing); *laryngospasm* (shortness of breath; trouble in breathing; tightness in chest; wheezing); *shortness of breath; stridor* (noisy breathing).

CHEST: *arrest, cardiopulmonary* (no pulse or blood pressure; no breathing; unconscious; heart stops); *arrhythmias* (*dizziness; fainting; fast, slow, or irregular heartbeat*); *bradycardia* (chest pain or discomfort; lightheadedness, dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); *bronchospasm* (shortness of breath, tightness in chest, troubled breathing, or wheezing); *contractions, ventricular, premature* (chest pain or discomfort; shortness of breath; weakness; lightheadedness; irregular heartbeat); *fibrillation, atrial* (fast or irregular heartbeat; dizziness; fainting); *heart block, second-degree* (chest pain or discomfort; decreased or irregular heartbeat; pain in neck, back, or jaw; shortness of breath; weakness); *pain, chest; palpitations* (irregular heartbeat); *tachycardia, supraventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *tachycardia, ventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations).

EXTREMITIES: *angioedema* (large, hive-like swelling on hands, legs, feet)

SLEEP: *drowsiness*

CHILL: *cold sensation* (feeling cold)

FEVER: *fever*

SKIN: *pruritus* (itching); *rash; urticaria* (hives or welts; itching; redness of skin; skin rash)

GENERALITIES: *cold sensation* (feeling cold); *paresthesia* (burning, tingling, or prickling sensations); *tiredness or weakness, unusual; anaphylaxis* (hypotension; skin rash,

hives, and/or itching; troubled breathing); *arrhythmias* (dizziness; fainting; fast, slow, or irregular heartbeat); *bradycardia* (chest pain or discomfort; lightheadedness, dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); *dystonic reactions* (inability to move eyes; increased blinking or spasms of eyelid; sticking out of tongue; trouble in breathing, speaking, or swallowing; uncontrolled twisting movements of neck, trunk, arms, or legs; unusual facial expressions; weakness of arms and legs); *extrapyramidal effects*; *fibrillation, atrial* (fast or irregular heartbeat; dizziness; fainting); *heart block, second-degree* (chest pain or discomfort; decreased or irregular heartbeat; pain in neck, back, or jaw; shortness of breath; weakness); *hypersensitivity reaction* (difficulty in breathing or swallowing; fast heartbeat; shortness of breath; skin itching, rash, or redness; swelling of face, throat, or tongue); *hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); *injection-site reactions* (pain, redness, and burning at site of injection); *palpitations* (irregular heartbeat); *shock* (cold clammy skin; confusion; dizziness; lightheadedness; fast, weak pulse; sweating; wheezing); *tachycardia, supraventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *tachycardia, ventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations).

DIAGNOSTIC TESTS: *electrocardiographic alterations*; *fibrillation, atrial*; *heart block, second-degree*; *liver enzyme abnormalities* (lab results that show problems with liver); *ST segment depression*; *tachycardia, supraventricular*; *tachycardia, ventricular*.

Opium (Narcotic) Analgesics (Systemic)

Other commonly used names: Anileridine; Butorphanol; Codeine; Hydrocodone; Hydromorphone; Levorphanol; Meperidine; Methadone; Morphine; Nalbuphine; Opium; Oxycodone; Oxymorphone; Pentazocine; Propoxyphene

Commercial name(s): 642; *Astramorph PF*; *Cotanal-65*; *Darvon*; *Darvon-N*; *Demerol*; *Dilaudid*; *Dilaudid-5*; *Dilaudid-HP*; *Dolophine*; *Duramorph*; *Epimorph*; *Hycodan*; *Hydrostat IR*; *Kadian*; *Leritine*; *Levo-Dromoran*; *M S Contin*; *M-Eslon*; *M.O.S*; *M.O.S.-S.R*; *MS IR*; *MS.IR*; *MS/L*; *MS/L Concentrate*; *MS/S*; *MSIR*; *Methadose*; *Morphine Extra-Forte*; *Morphine Forte*; *Morphine H.P*; *Morphitec*; *Nubain*; *Numorphan*; *OMS Concentrate*; *Oramorph SR*; *OxyContin*; *PMS-Hydromorphone*; *PMS-Hydromorphone Syrup*; *PP-Cap*; *Pantopon*; *Paveral*; *RMS Uniserts*; *Rescudose*; *Robidone*; *Roxanol*; *Roxanol 100*; *Roxanol UD*; *Roxicodone*; *Roxicodone Intensol*; *Stadol*; *Statex*; *Statex Drops*; *Supeudol*; *Talwin*; *Talwin-Nx*.

Category: Analgesic [Anileridine; Butorphanol; Codeine; Hydrocodone; Hydromorphone; Levorphanol; Meperidine; Methadone; Morphine; Nalbuphine; Opium; Oxycodone; Oxymorphone; Pentazocine; Propoxyphene]; Anesthesia adjunct (opioid analgesic) [Parenteral dosage forms only: Butorphanol; Hydromorphone; Levorphanol; Meperidine; Morphine; Nalbuphine; Oxymorphone; Pentazocine]; Antidiarrheal [Codeine; Morphine; Opium Tincture]; Antitussive [Codeine (oral dosage forms only); Hydrocodone; Hydromorphone; Methadone; Morphine]; Suppressant (narcotic abstinence syndrome) [Methadone; Opium Tincture]; Pulmonary edema therapy adjunct [Morphine]

Conventional indications: Pain (treatment) [Morphine, methadone, and parenteral opium]; Anesthesia, general or local, adjunct [Parenteral dosage forms of butorphanol, hydromorphone, levorphanol, meperidine, morphine, nalbuphine, oxymorphone, and pentazocine]; Diarrhea (treatment) [Codeine, morphine, and opium tincture]; Cough (treatment) [Although only codeine (oral dosage forms), hydrocodone, and hydromorphone; Meperidine, oxymorphone, and propoxyphene]; Opioid (narcotic) abstinence syndrome (prophylaxis and treatment), or Opioid (narcotic) drug use, illicit (treatment) [Methadone]; Edema, pulmonary, acute (treatment adjunct) [Morphine, Oxymorphone]; Opioid (narcotic) dependence, neonatal (treatment) [Opium tincture]; Pain, during mechanical ventilation, neonatal (treatment) [Intravenous administration of morphine]; Pain, postoperative, neonatal (treatment) [Intravenous administration of morphine].

Primary Actions or Pathogenetic Symptoms

MIND: confusion (may include delusions and feelings of depersonalization or unreality); *depression, mental; hallucinations; sedation, excessive; unconsciousness.*

VERTIGO: *dizziness; feeling faint; hypotension, orthostatic; lightheadedness.*

HEAD: headache.

EYE: pupils, pinpoint.

VISION: double vision; blurred vision; changes in vision.

HEARING: buzzing, ringing.

MOUTH: dryness.

STOMACH: **nausea; vomiting;** appetite, loss of (more frequent with Hydromorphone); irritation, gastrointestinal (stomach cramps or pain).

ABDOMEN: irritation, gastrointestinal (stomach cramps or pain); spasm, biliary (stomach cramps or pain); *hepatotoxicity* (dark urine, pale stools, yellow eyes or skin); *ileus, paralytic* (severe constipation, bloating, nausea, stomach cramps or pain, vomiting) (in patients with inflammatory bowel disease); *megacolon, toxic* (severe constipation, bloating, nausea, stomach cramps or pain, vomiting) (in patients with inflammatory bowel disease).

RECTUM: **constipation** [Codeine; Morphine; Opium Tincture].

BLADDER: **retention, urinary;** antidiuretic effect (decreased urination).

KIDNEYS: antidiuretic effect (decreased urination); spasm, ureteral (difficult or painful urination, frequent urge to urinate).

URINE: antidiuretic effect (decreased urination).

LARYNX AND TRACHEA: edema, laryngeal, allergic (shortness of breath, slow or irregular breathing, troubled breathing); laryngospasm, allergic (shortness of breath, slow or irregular breathing, troubled breathing).

RESPIRATION: bronchospastic allergic reaction (shortness of breath, slow or irregular breathing, troubled breathing); depression, respiratory (shortness of breath, slow or irregular breathing, troubled breathing); laryngospasm, allergic (shortness of breath, slow or irregular breathing, troubled breathing); *rigidity, muscle, especially in muscles of respiration.*

CHEST: atelectasis (shortness of breath, slow or irregular breathing, troubled breathing); bronchospastic allergic reaction (shortness of breath, slow or irregular breathing, troubled

breathing); heartbeat, fast, slow, or pounding, rigidity, muscle, especially in muscles of respiration.

EXTREMITIES: trembling or uncontrolled muscle movements; rigidity, muscle, especially in muscles of respiration.

SLEEP: drowsiness; trouble in sleeping; sedation, excessive.

DREAMS: nightmares; unusual dreams.

SKIN: pruritus, generalized; cold, clammy skin.

GENERALITIES: *analgesia* (pain absence) [Anileridine; Butorphanol; Codeine; Hydrocodone; Hydromorphone; Levorphanol; Meperidine; Methadone; Morphine; Nalbuphine; Opium; Oxycodone; Oxymorphone; Pentazocine; Propoxyphene; Parenteral dosage forms only: Butorphanol; Hydromorphone; Levorphanol; Meperidine; Morphine; Nalbuphine; Oxymorphone; Pentazocine]; **histamine release** (decreased blood pressure, fast heartbeat, increased sweating, redness or flushing of face, wheezing or troubled breathing); **hypotension** (dizziness, feeling faint, lightheadedness, unusual tiredness or weakness); **hypotension, orthostatic; tiredness or weakness, unusual; allergic reaction** (skin rash, hives, and/or itching; swelling of face); antidiuretic effect (decreased urination); convulsions; false sense of well-being (more frequent with Pentazocine); feeling of discomfort or illness, general; heartbeat, fast, slow, or pounding; redness, swelling, pain, or burning at site of injection; trembling or uncontrolled muscle movements; blood pressure, increased (rebound effect?); rigidity, muscle, especially in muscles of respiration.

Secondary Actions or Rebound Effects: *abstinence syndrome*; *CNS stimulation, paradoxical* (unusual excitement or restlessness); *withdrawal symptoms* (aches, body; appetite, loss of; cramps, stomach; diarrhea; fever; gooseflesh; heartbeat, fast; irritability; nausea; nervousness; pupils, unusually large; restlessness; runny nose; shivering; sneezing; sweating, increased; trembling; trouble in sleeping; vomiting; weakness; yawning, increased).

Opioid (Narcotic) Analgesics and Acetaminophen (Systemic)

Other commonly used names: Acetaminophen and Codeine; Dihydrocodeine and Acetaminophen; Hydrocodone and Acetaminophen; Oxycodone and Acetaminophen; Pentazocine and Acetaminophen; Propoxyphene and Acetaminophen.

Commercial name(s): *Acet Codeine 30; Acet Codeine 60; Acet-2; Acet-3; Allay; Anexsia 5/500; Anexsia 7.5/650; Anolor DH 5; Atasol-15; Atasol-30; Atasol-8; Bancap-HC; Capital with Codeine; Cetaphen Extra Strength with Codeine; Cetaphen with Codeine; Co-Gesic; Cotabs; DHC plus; Darvocet-N 100; Darvocet-N 50; Dolacet; Dolagesic; Duocet; E-Lor; EZ III; Empracet-30; Empracet-60; Emttec-30; Endocet; Exdol-8; HY-PHEN; Hyco-Pap; Hycomed; Hydrocet; Hydrogesic; Lenoltec with Codeine No.1; Lenoltec with Codeine No.2; Lenoltec with Codeine No.3; Lenoltec with Codeine No.4; Lorcet 10/650; Lorcet Plus; Lorcet-HD; Lortab; Lortab 10/500; Lortab 2.5/500; Lortab 5/500; Lortab 7.5/500; Margesic #3; Margesic-H; Novo-Gesic C15; Novo-Gesic C30; Novo-Gesic C8; Oncet; Oxycocet; PMS-Acetaminophen with Codeine; Panacet 5/500; Panlor; Percocet; Percocet 10/650; Percocet 2.5/325; Percocet 5/325; Percocet 7.5/500; Percocet-Demi; Phenaphen*

with Codeine No. 3; Phenaphen with Codeine No.4; Polygesic; Propacet 100; Pyregesic-C; Roxicet; Roxicet 5/500; Roxilox; Stagesic; T-Gesic; Talacen; Triatec-30; Triatec-8; Triatec-8 Strong; Tylenol with Codeine Elixir; Tylenol with Codeine No.1; Tylenol with Codeine No.1 Forte; Tylenol with Codeine No.2; Tylenol with Codeine No.3; Tylenol with Codeine No.4; Tylox; Ugesic; Vanacet; Vendone; Vicodin; Vicodin ES; Wygesic; Zydone.

Category: Analgesic.

Conventional indications: *Pain (treatment):* Mild to moderate pain [Pentazocine and acetaminophen; propoxyphene and acetaminophen]; mild to severe pain (depending on the dose of codeine) [Acetaminophen and codeine]; moderate to moderately severe pain [Dihydrocodeine and acetaminophen; hydrocodone and acetaminophen].

Primary Actions or Pathogenetic Symptoms

GENERALITIES: *analgesia* (pain absence).

Acetaminophen - See Acetaminophen (Systemic).

Caffeine - See Caffeine (Systemic).

Codeine - See Opioid (Narcotic) Analgesics (Systemic).

Dihydrocodeine - Although dihydrocodeine is not specifically referenced, see Opioid (Narcotic) Analgesics (Systemic) for side/adverse effects that may occur with opioid agonist analgesics.

Hydrocodone - See Opioid (Narcotic) Analgesics (Systemic).

Oxycodone - See Opioid (Narcotic) Analgesics (Systemic).

Pentazocine - See Opioid (Narcotic) Analgesics (Systemic).

Propoxyphene - See Opioid (Narcotic) Analgesics (Systemic).

Opioid (Narcotic) Analgesics and Aspirin (Systemic)

Category: Analgesic.

Conventional indications: *Pain (treatment):* Mild to severe pain (depending on the dose of codeine) [Aspirin and codeine; buffered aspirin and codeine]; mild to moderate pain [Propoxyphene and aspirin]; moderate pain [Pentazocine and aspirin]; moderate to moderately severe pain [Aspirin and dihydrocodeine; oxycodone and aspirin]; moderate to severe pain [Hydrocodone and aspirin].

Primary Actions or Pathogenetic Symptoms

GENERALITIES: *analgesia* (pain absence).

Aspirin - See Salicylates (Systemic).

Caffeine - See Caffeine (Systemic).

Codeine - See Opioid (Narcotic) Analgesics (Systemic).

Dihydrocodeine - Although dihydrocodeine is not specifically referenced, see Opioid (Narcotic) Analgesics (Systemic) for side/adverse effects that may occur with opioid agonist analgesics.

Hydrocodone - See Opioid (Narcotic) Analgesics (Systemic).

Oxycodone - See Opioid (Narcotic) Analgesics (Systemic).

Pentazocine - See Opioid (Narcotic) Analgesics (Systemic).

Propoxyphene - See Opioid (Narcotic) Analgesics (Systemic).

Oprelvekin (Systemic)

Commercial name(s): *Neumega*.

Category: Hematopoietic stimulant.

Conventional indications: Thrombocytopenia (prophylaxis).

Primary Actions or Pathogenetic Symptoms

EYE: **injection, conjunctival** (red eyes); hemorrhage, conjunctival (bloody eye); papilledema (blurred vision change in ability to see colors, especially blue or yellow).

VISION: blurred vision.

MOUTH: **moniliasis, oral** (sore mouth or tongue; white patches in mouth and/or on tongue).

KIDNEYS: *failure, renal* (bloody urine, decreased frequency /amount of urine, increased blood pressure increased thirst, loss of appetite, lower back/side pain, nausea, swelling of face, fingers, lower legs, troubled breathing, unusual tiredness or weakness, vomiting, weight gain).

CHEST: **arrhythmias, atrial** (irregular heartbeat); **tachycardia** (fast heartbeat).

SKIN: dermatitis, exfoliative (severe redness and peeling of skin); discoloration.

GENERALITIES: *hematopoietic stimulant*; **arrhythmias, atrial** (irregular heartbeat); **asthenia, severe** (weakness); **retention, fluid** (shortness of breath; swelling of feet or lower legs; peripheral edema, dyspnea on exertion, pulmonary edema, capillary leak syndrome, atrial arrhythmias, and exacerbation of pre-existing pleural effusions); **tachycardia** (fast heartbeat); dehydration; paresthesia (numbness or tingling of hands or feet); rash at injection site; *allergic reactions or anaphylaxis/anaphylactoid reactions* (cough, difficulty swallowing, dizziness, fast heartbeat, hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue, shortness of breath, skin rash tightness in chest, unusual tiredness or weakness, wheezing); *capillary leak syndrome* (cloudy urine; decrease or increase in amount of urine; fainting or lightheadedness; nausea; stomach pain; swelling of hands, ankles, feet, or lower legs); *death, sudden*; *injection site reactions described as dermatitis, pain, and discoloration* (bleeding, blistering, burning, coldness, discoloration of skin, feeling of pressure, hives, infection, inflammation, itching, lumps, numbness, pain, rash, redness, scarring, soreness, stinging, swelling, tenderness, tingling, ulceration, or warmth at site); *weight gain*.

Orlistat (Oral-Local)

Commercial name(s): *Xenical*.

Category: Lipase inhibitor.

Conventional indications: Obesity, exogenous (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety*.

VERTIGO: *dizziness*.

HEAD: *headache*.

EAR: *otitis* (change in hearing; earache; pain in ear).

MOUTH: *gingival disorder* (gum problems).

TEETH: *tooth disorder* (tooth problems).

STOMACH: *nausea; vomiting*.

ABDOMEN: *lipase inhibitor; flatus with discharge* (gas with leaky bowel movements); **pain, abdominal**.

RECTUM: **defecation, increased** (increase in bowel movements); **evacuation, oily** (oily bowel movements); **incontinence, fecal** (inability to hold bowel movement); **spotting, oily** (oily spotting of underclothes); **urgency, fecal** (immediate need to have bowel movement); *discomfort, rectal; pain, rectal; diarrhea, infectious* (contagious diarrhea).

STOOL: **fatty/oily stool** (oily bowel movements).

BLADDER: *infection, urinary tract* (bloody or cloudy urine; difficult or painful urination; frequent urge to urinate).

KIDNEYS: *infection, urinary tract* (bloody or cloudy urine; difficult or painful urination; frequent urge to urinate).

GENTALIA FEMALE: *menstrual irregularities* (menstrual changes).

RESPIRATION: **infection, upper respiratory tract** (runny nose; nasal congestion; sneezing; sore throat; cough; fever); *infection, lower respiratory tract* (cough; troubled breathing; tightness in chest; wheezing).

BACK: *pain, back*.

EXTREMITIES: *arthritis* (joint pain); *myalgia* (muscle pain).

SLEEP: *insomnia* (trouble in sleeping).

SKIN: *dryness; rash*.

GENERALITIES: **infection, upper respiratory tract** (runny nose; nasal congestion; sneezing; sore throat; cough; fever); **influenza-like symptoms** (fever; chills; headache; bodyache); *infection, lower respiratory tract* (cough; troubled breathing; tightness in chest; wheezing); *arthritis* (joint pain); *fatigue* (unusual tiredness or weakness); *myalgia* (muscle pain).

Orphenadrine and Aspirin (Systemic)

Commercial name(s): *N3 Gesic; N3 Gesic Forte; Norgesic; Norgesic Forte; Norphadrine; Norphadrine Forte; Orphenagesic; Orphenagesic Forte*.

Category: Analgesic-skeletal muscle relaxant.

Conventional indications: Spasm, skeletal muscle, accompanied by pain (treatment).

Primary Actions or Pathogenetic Symptoms

EXTREMITIES: *skeletal muscle relaxant*.

GENERALITIES: *analgesia* (pain absence); *skeletal muscle relaxant*.

Orphenadrine - See Skeletal Muscle Relaxants (Systemic).

Aspirin - See Salicylates (Systemic).

Caffeine - See Caffeine (Systemic).

Oseltamivir (Systemic)

Commercial name(s): *Tamiflu*.

Category: Antiviral (Systemic).

Conventional indications: Influenza A (treatment); Influenza B (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion* (mood or mental changes).

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *conjunctivitis* (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing).

EAR: *ear disorder*.

NOSE: *epistaxis* (bloody nose; unexplained nosebleeds).

FACE: *swelling of the face*.

MOUTH: *swelling of the tongue*.

THROAT: *abscess, peritonsillar* (sore throat, tender glands of jaw and throat, facial swelling, drooling, headache, fever, hoarseness).

STOMACH: *nausea; vomiting*.

ABDOMEN: *pain, abdominal; colitis, pseudomembranous* (abdominal or stomach cramps; pain; bloating; abdominal tenderness; diarrhea, watery and severe, which may also be bloody; fever; increased thirst; nausea or vomiting; unusual tiredness or weakness; unusual weight loss).

RECTUM: *diarrhea*.

RESPIRATION: *bronchitis* (phlegm producing cough; wheezing); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

COUGH: *cough*.

CHEST: *bronchitis* (phlegm producing cough; wheezing); *angina, unstable* (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath); *arrhythmia* (dizziness; fainting; fast, slow, or irregular heartbeat); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

EXTREMITIES: *fracture, humerus*.

SLEEP: *insomnia* (trouble in sleeping).

FEVER: *pyrexia* (fever).

SKIN: *dermatitis* (blistering, crusting, irritation, itching, or reddening of skin; cracked, dry, scaly skin; swelling); *eczema* (skin rash encrusted, scaly and oozing); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips);

unusual tiredness or weakness); *necrosis, epidermal, toxic* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *rash; urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *fatigue; allergy* (dizziness; fast heartbeat; shortness of breath; skin rash or itching over the entire body; sweating; weakness; wheezing); *anaphylactic/anaphylactoid reactions* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); *arrhythmia* (dizziness; fainting; fast, slow, or irregular heartbeat); *diabetes, aggravation of* (blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; loss of consciousness; nausea; stomachache; sweating; troubled breathing; unexplained weight loss; vomiting); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *hepatitis* (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin)); *seizure* (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *anemia*.

Oxaliplatin (Systemic)

Commercial name(s): *Eloxatin*.

Category: Antineoplastic.

Conventional indications: Carcinoma, colon (treatment adjuvant); Carcinoma, colorectal (treatment); Colon cancer, stage II, adjuvant treatment in combination with 5-fluorouracil/leucovorin.

Primary Actions or Pathogenetic Symptoms

MIND: *dysarthria* (trouble in speaking; slurred speech; changes in patterns and rhythms of speech).

VERTIGO: *dizziness*.

HEAD: *headache; alopecia* (hair loss; thinning of hair).

EYE: *lacrimation, abnormal* (unusual tearing of eyes); *angioedema* (large, hive-like swelling on eyelids); *neuritis, optic* (blindness; blue-yellow color blindness; blurred vision; decreased vision; eye pain); *palsies, cranial nerve* (weakness of the muscles in your face); *pain, eye*.

VISION: *visual acuity, decreased* (decrease in vision); *visual field disturbance* (blurred vision; decrease or change in vision).

HEARING: *deafness*.

NOSE: *rhinitis* (stuffy nose; runny nose; sneezing); *epistaxis* (bloody nose).

FACE: *flushing* (feeling of warmth; redness of the face); *angioedema* (large, hive-like swelling on face, lips); *palsies, cranial nerve* (weakness of the muscles in your face); *spasm, jaw*.

MOUTH: *stomatitis* (swelling or inflammation of the mouth); *mucositis* (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth); *taste perversion* (change in taste; bad, unusual or unpleasant (after) taste); *angioedema* (large, hive-like swelling on tongue); *dysarthria* (trouble in speaking; slurred speech; changes in patterns and rhythms of speech); *sensation, tongue, abnormal*.

THROAT: *mucositis* (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth); *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); *angioedema* (large, hive-like swelling on throat); *syndrome of pharyngolaryngeal dysesthesia, acute* (subjective sensations of dysphagia or dyspnea, without any laryngospasm or bronchospasm).

EXTERNAL THROAT: *flushing* (feeling of warmth; redness of the neck).

STOMACH: *anorexia* (loss of appetite; weight loss); *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); *nausea; vomiting; hiccup; reflux, gastroesophageal* (heartburn; vomiting).

ABDOMEN: *pain, abdominal; flatulence* (bloated, full feeling; excess air or gas in stomach or intestines; passing gas); *colitis* (stomach cramps; tenderness; pain; watery or bloody diarrhea; fever); *hepatic veno-occlusive disease* (bloated abdomen; pain and fullness in right upper abdomen; weight gain; yellow eyes and skin); *ileus* (abdominal pain; severe constipation; severe vomiting); *obstruction, intestinal* (abdominal pain; severe constipation; nausea; vomiting); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: *constipation; diarrhea; mucositis* (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth); *diarrhea, clostridium difficile* (severe abdominal or stomach cramps and pain; abdominal tenderness; watery and severe diarrhea, which may also be bloody; fever).

BLADDER: *dysuria* (difficult or painful urination; burning while urinating).

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

LARYNX AND TRACHEA: *syndrome of pharyngolaryngeal dysesthesia, acute* (subjective sensations of dysphagia or dyspnea, without any laryngospasm or bronchospasm).

RESPIRATION: *dyspnea* (difficult breathing); *infection, upper respiratory* (ear congestion; nasal congestion; chills; cough; fever; sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *failure, respiratory; wheezing*.

COUGH: *cough, persistent*.

CHEST: pain, chest; *flushing* (feeling of warmth; redness of the upper chest); *fibrosis, pulmonary* (fever; cough; shortness of breath); *pressure, chest, feeling of*; bradycardia (chest pain or discomfort; dizziness or fainting; lightheadedness; shortness of breath; slow or irregular heartbeat; unusual tiredness).

BACK: pain, back; *Lhermitte's sign* (an electric shock-like sensation that moves down the back and into the legs following a bending movement of the neck).

EXTREMITIES: arthralgia (pain in joints; muscle pain or stiffness; difficulty in moving); **hand-foot syndrome** (blistering, peeling, redness, and/or swelling of palms of hands or bottoms of feet; numbness, pain, tingling, or unusual sensations in palms of hands or bottoms of feet); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet, unusual; weight gain or loss); *flushing* (feeling of warmth; redness of the arms); *angioedema* (large, hive-like swelling on hands, legs, feet); *fasciculation* (twitches of the muscle visible under the skin); *reflexes, deep tendon, loss of*.

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep).

CHILL: rigors (feeling unusually cold shivering).

FEVER: fever.

SKIN: *alopecia* (hair loss; thinning of hair); *flushing* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest); *rash*.

GENERALITIES: anemia (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **dehydration** (confusion; decreased urination; dizziness; dry mouth; fainting; increase in heart rate; lightheadedness; rapid breathing; sunken eyes; thirst; unusual tiredness or weakness; wrinkled skin); **edema** (swelling); **fatigue** (unusual tiredness or weakness); **infection, upper respiratory** (ear congestion; nasal congestion; chills; cough; fever; sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **injection site reaction** (bleeding, blistering, burning, coldness, discoloration of skin; feeling of pressure; hives; infection; inflammation; itching; lumps; numbness; pain; rash; redness; scarring; soreness; stinging; swelling; tenderness; tingling; ulceration; warmth); **leukopenia** (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); **neuropathy, acute, reversible, primarily peripheral, sensory, or persistent (greater than 14 days), primarily peripheral, sensory** (abnormal tongue sensation; burning, prickling, itching, or tingling of skin; difficulty in articulating words; difficulty breathing; difficulty performing daily activities such as writing, buttoning, swallowing or walking; difficulty swallowing; eye pain; jaw spasm; numbness, decreased feeling, or pain in the hands, feet, around mouth, or throat; pressure in chest; sensation of pins and needles, stabbing pain); **neutropenia** (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); **thrombocytopenia** (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); **thromboembolism** (pain in chest, groin, or legs, especially the calves; difficulty breathing; severe, sudden headache; slurred speech; sudden, unexplained

shortness of breath; sudden loss of coordination; sudden, severe weakness or numbness in arm or leg; vision changes); *allergic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *alopecia* (hair loss; thinning of hair); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet unusual; weight gain or loss); *flushing* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest); *hypokalemia* (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); *mucositis* (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth); *acidosis, metabolic* (confusion; drowsiness; muscle tremors; nausea; rapid, deep breathing; restlessness; stomach cramps; unusual tiredness or weakness); *anaphylactic shock* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *anemia, hemolytic, angioedema; immuno-allergic* (back, leg, or stomach pains; bleeding gums; chills; dark urine; difficulty breathing; fatigue; fever; general body swelling; headache; loss of appetite; nausea or vomiting; nosebleeds; pale skin; sore throat; yellowing of the eyes or skin); *fasciculations* (twitches of the muscle visible under the skin); *hemolytic uremic syndrome* (black, tarry, stools; stomach pain; blood in urine; fever; increased or decreased urination; pinpoint red spots on skin; swelling of face, fingers, feet, or lower legs; unusual bleeding or bruising; unusual tiredness or weakness; yellow eyes or skin); *hepatic veno-occlusive disease* (bloated abdomen; pain and fullness in right upper abdomen; weight gain; yellow eyes and skin); *pain, local, and inflammation, including necrosis; palsies, cranial nerve* (weakness of the muscles in your face); *reflexes, deep tendon, loss of; thrombocytopenia, immuno-allergic* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); bradycardia (chest pain or discomfort; dizziness or fainting; lightheadedness; shortness of breath; slow or irregular heartbeat; unusual tiredness); dysesthesia (lack of sensation); myelosuppression (black, tarry stools; blood in urine or stools; cough or hoarseness; difficult urination; fever or chills; lower back or side pain painful; pinpoint red spots on skin; unusual bleeding or bruising); neurotoxicity (agitation; coma; confusion; disorientation; dizziness; involuntary, rapid, rhythmic movement of the eyes; lack of coordination; lethargy; muscle twitching; paralysis; severe weakness; seizures; slurred speech; tremors); paresthesia (burning, prickling, itching, or tingling of skin

DIAGNOSTIC TESTS: *anemia; leukopenia; neutropenia; thrombocytopenia; hypokalemia; acidosis, metabolic; anemia, hemolytic, immuno-allergic; thrombocytopenia, immuno-allergic; myelosuppression.*

Oxcarbazepine (Systemic)

Commercial name(s): *Trileptal.*

Category: Anticonvulsant.

Conventional indications: Epilepsy, partial seizures (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: emotional lability (crying; false sense of well-being; mental depression); *amnesia* (memory loss); *nervousness*; *thinking, abnormal* (confusion; disorientation); *agitation* (anxiety; nervousness; irritability; restlessness); *concentration, difficulty with*; *confusion*; *psychomotor slowing*; *speech or language problems*.

VERTIGO: dizziness; gait, abnormal (change in walking and balance; clumsiness or unsteadiness); **vertigo** (feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: headache.

EYE: nystagmus (change in vision; double vision; uncontrolled back-and-forth and/or rolling eye movements).

VISION: abnormal vision (change in vision; double vision; uncontrolled back-and-forth and/or rolling eye movements); **diplopia** (change in vision; double vision; uncontrolled back-and-forth and/or rolling eye movements); *accommodation, abnormal* (blurred vision; change in near or distance vision; difficulty in focusing).

NOSE: rhinitis (runny nose; stuffy nose; sneezing); *epistaxis* (bloody nose); *sinusitis* (fever; headache; pain or tenderness around eyes or cheekbones; stuffy or runny nose).

FACE: hot flashes (feeling of warmth and redness of the face).

MOUTH: dryness; speech disorder (difficulty in speaking); *taste perversion* (change in your sense of taste); *speech or language problems*.

THROAT: pharyngitis (congestion; cough; hoarseness; sore throat).

EXTERNAL THROAT: hot flashes (feeling of warmth and redness of the neck).

STOMACH: nausea; vomiting; dyspepsia (acid or sour stomach; belching; heartburn); *thirst, increased*; *gastritis* (burning feeling in chest or stomach; stomach upset).

ABDOMEN: pain, abdominal.

RECTUM: constipation; diarrhea; hemorrhage, rectal (rectal bleeding).

BLADDER: infection, urinary tract (bloody or cloudy urine; pain or burning while urinating; frequent urge to urinate); *micturition disturbance* (increased urination).

KIDNEYS: infection, urinary tract (bloody or cloudy urine; pain or burning while urinating; frequent urge to urinate).

GENTALIA FEMALE: vaginitis (itching of the vagina, with or without white vaginal discharge).

RESPIRATION: infection, upper respiratory tract (cough; fever; sneezing; or sore throat); *bronchitis* (cough; shortness of breath; troubled breathing; tightness in chest; wheezing).

COUGH: cough.

CHEST: bronchitis (cough; shortness of breath; troubled breathing; tightness in chest; wheezing); *hot flashes* (feeling of warmth and redness of the chest); *pain, chest*.

BACK: pain, back.

EXTREMITIES: ataxia (change in walking and balance; clumsiness or unsteadiness); *coordination, abnormal* (awkwardness; trembling or shaking of arms, legs, hands, or feet; trouble in walking); *dysmetria* (poor control in body movements - for example, when

reaching or stepping); *hot flashes* (feeling of warmth and redness of the arms); *weakness, muscle; edema in legs* (swelling of the legs); *psychomotor slowing*.

SLEEP: *somnolence* (sleepiness or unusual drowsiness); *insomnia* (trouble in sleeping).

FEVER: *fever*.

PERSPIRATION: *sweating, increased*.

SKIN: *acne; rash; erythema multiforme* (sores, ulcers, or white spots in mouth or on lips; muscle pain, cramps, or weakness); *necrolysis, epidermal, toxic, may be life-threatening* (fever; muscle pain; skin rash; sore throat); *purpura* (purple spots on skin).

GENERALITIES: *fatigue* (unusual tiredness or weakness); **infection, upper respiratory tract** (cough; fever; sneezing; or sore throat); **tremor;** *bruising; falls, frequent; feeling, abnormal* (general feeling of illness); *hypotension* (blurred vision; confusion; dizziness, faintness or light-headedness when getting up from a lying or sitting position; unusual tiredness or weakness); *infections, viral or other* (fever; general feeling of illness); *sinusitis* (fever; headache; pain or tenderness around eyes or cheekbones; stuffy or runny nose); *weakness, muscle; erythema multiforme* (sores, ulcers, or white spots in mouth or on lips; muscle pain, cramps, or weakness); *hypoesthesia* (decreased response to stimulation); *hyponatremia* (agitation; loss of consciousness; confusion; convulsions; decreased urination; dizziness; fast or irregular heartbeat; increased thirst; muscle cramps); *lymphadenopathy* (swollen glands); *multiorgan hypersensitivity disorders* (skin rash; fever; eosinophilia (fever); arthralgia (joint pain; lymphadenopathy, hepatitis, liver function test abnormalities, hematological abnormalities (e.g., eosinophilia, thrombocytopenia, neutropenia), pruritus, nephritis, oliguria, hepato-renal syndrome, arthralgia and asthenia)); *psychomotor slowing; Stevens-Johnson syndrome, may be life-threatening* (redness, blistering, peeling, or loosening of skin; fever; hives or itching; bleeding or crusting sores on lips; sore throat; chills; muscle or joint pain; unusual tiredness or weakness; chest pain).

DIAGNOSTIC TESTS: *EEG, abnormal; hyponatremia; liver function test abnormalities*.

Secondary Actions or Rebound Effects: *convulsions, aggravated*.

Oxiconazole (Topical)

Commercial name(s): *Oxistat; Oxizole*.

Category: Antifungal (topical).

Conventional indications: *Tinea corporis* (treatment); *Tinea cruris* (treatment); *Tinea pedis* (treatment); *Tinea (pityriasis) versicolor* (treatment) [Oxiconazole (cream only)].

Primary Actions or Pathogenetic Symptoms

HEAD: *folliculitis* (burning, itching, and pain in hairy areas; pus at root of hair).

SKIN: *burning and pruritus, not present before* (itching); *rash; stinging; dermatitis, contact, allergic* (blistering, burning, crusting, dryness, or flaking of skin; itching; scaling; severe redness, soreness, or swelling of skin); *irritation not present before*; inflammation, dermal, severe (animal toxicology study).

GENERALITIES: *pain; tingling*; death (animal toxicology study).

Oxtriphylline and Guaifenesin (Systemic)

Commercial name(s): *Brondelate; Choledyl Expectorant.*

Category: Asthma prophylactic; Bronchodilator.

Conventional indications: Asthma (prophylaxis and treatment); Bronchitis, chronic (treatment); Emphysema, pulmonary (treatment); Pulmonary disease, chronic obstructive, other (treatment).

Primary Actions or Pathogenetic Symptoms

CHEST: *bronchodilator.*

Oxtriphylline - See Bronchodilators, Theophylline (Systemic).

Guaifenesin - See Guaifenesin (Systemic).

Oxybutynin (Systemic)

Commercial name(s): *Ditropan; Ditropan XL.*

Category: Antispasmodic (urinary tract).

Conventional indications: Urologic disorders, symptoms of (treatment); Irritative voiding, symptoms of (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *hallucinations* (seeing, hearing, or feeling things that are not there); clumsiness; confusion; excitement, unusual; irritability, unusual; nervousness, unusual; restlessness, unusual.

VERTIGO: dizziness.

HEAD: *headache.*

EYE: **dryness;** *mydriatic effect* (increased sensitivity of eyes to light); *pressure, intraocular, increased* (eye pain).

VISION: *accommodation, difficulty in* (blurred vision).

NOSE: **dryness;** **rhinitis** (stuffy nose; runny nose; sneezing).

FACE: flushing of face; redness of face.

MOUTH: **dryness;** *saliva secretion, decreased* (difficulty in swallowing).

THROAT: **dryness.**

STOMACH: **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); *nausea; vomiting.*

RECTUM: **constipation; diarrhea.**

BLADDER: *urination, difficult.*

GENITALIA MALE: *sexual ability decreased; impotence* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection).

GENITALIA FEMALE: *sexual ability decreased.*

RESPIRATION: depression, respiratory (shortness of breath or troubled breathing).

CHEST: *breast milk, decreased flow of; palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); *arrhythmia, cardiac* (dizziness; fainting; fast, slow, or irregular heartbeat); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); heartbeat, fast.

EXTREMITIES: *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); clumsiness; unsteadiness.

SLEEP: *drowsiness; trouble in sleeping.*

FEVER: fever.

PERSPIRATION: *sweating, decreased; suppression of sweat gland activity.*

SKIN: *allergic reaction* (skin rash or hives).

GENERALITIES: *palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); *tiredness or weakness, unusual; vasodilation* (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or light-headedness; sweating); *arrhythmia, cardiac* (dizziness; fainting; fast, slow, or irregular heartbeat); *convulsions* (seizures); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); *tachycardia* (fast, pounding, or irregular heartbeat or pulse).

Oxymetazoline (Nasal)

Commercial name(s): 4-Way 12-Hour Nasal Spray; Afrin Cherry 12 Hour Nasal Spray; Afrin Extra Moisturizing 12 Hour Nasal Spray; Afrin Original 12 Hour Nasal Spray; Afrin Original 12 Hour Nose Drops; Afrin Original 12 Hour Pump Mist; Afrin Sinus 12 Hour Nasal Spray; Dristan 12-Hr Nasal Spray; Dristan Long Lasting Mentholated Nasal Spray; Dristan Long Lasting Nasal Mist; Drixoral Nasal Solution; Duramist Plus Up To 12 Hour Nasal Decongestant Spray; Duration 12 Hour Nasal Spray; Genasal Nasal Spray Up to 12 Hour Relief; Nasal Relief 12 Hour Nasal Spray; Neo-Synephrine 12 Hour Extra Moisturizing Spray; Neo-Synephrine 12 Hour Spray; Nostrilla 12 Hour Nasal Decongestant; Twice-A-Day Extra Moisturizing 12 Hour Nasal Spray; Twice-A-Day Soothing 12 Hour Nasal Spray; Vicks Sinex 12 Hour Nasal Spray; Vicks Sinex 12 Hour Ultra Fine Mist for Sinus Relief.

Category: Decongestant (topical).

Conventional indications: Congestion, nasal (treatment); Congestion, sinus (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness.*

VERTIGO: *dizziness; lightheadedness.*

HEAD: *headache.*

VISION: *blurred vision.*

NOSE: *burning of nasal mucosa; discharge, nasal, increase in; dryness of nasal mucosa; sneezing; stinging of nasal mucosa.*

CHEST: *heartbeat, fast, irregular, or pounding.*

SLEEP: *drowsiness; trouble in sleeping.*

GENERALITIES: *blood pressure, high; heartbeat, fast, irregular, or pounding; trembling; weakness; depression, central nervous system, profound (in children).*

Secondary Actions or Rebound Effects: *congestion, rebound (increase in runny or stuffy nose).*

Oxymetazoline (Ophthalmic)

Commercial name(s): *OcuClear; Visine LR.*

Category: Decongestant (ophthalmic).

Conventional indications: Ocular redness (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness.*

VERTIGO: *lightheadedness.*

HEAD: *headache.*

EYE: *irritation of the conjunctiva, increased (excessive dosage and/or prolonged use).*

CHEST: *heartbeat, fast, irregular, or pounding.*

SLEEP: *trouble in sleeping.*

GENERALITIES: *heartbeat, fast, irregular, or pounding; trembling.*

Secondary Actions or Rebound Effects: *hyperemia, reactive (increase in irritation or redness of eyes) (excessive dosage and/or prolonged use).*

Oxytocin (Systemic)

Commercial name(s): *Pitocin; Syntocinon.*

Category: Oxytocic [Oxytocin]; Antihemorrhagic (postpartum and postabortal uterine bleeding) [Oxytocin Injection]; Lactation stimulant [Oxytocin Nasal Solution]; Diagnostic aid (utero-placental insufficiency; placental reserve) [Oxytocin Injection].

Conventional indications: Labor, medical induction of, or Labor, augmentation of, or Abortion, incomplete (treatment) [Parenterally administered oxytocin]; Abortion, therapeutic [Parenterally administered oxytocin]; Hemorrhage, postabortion (treatment); Hemorrhage, postpartum (treatment); Lactation deficiency (treatment) [Intranasally administered oxytocin]; Fetal distress (diagnosis), or Utero-placental insufficiency (diagnosis) [Oxytocin is administered parenterally].

Primary Actions or Pathogenetic Symptoms

MIND: *psychotic reaction [nasal use].*

HEAD: *hemorrhage, subarachnoid (can lead to maternal death).*

EYE: *lacrimation (tearing of the eyes) [nasal use].*

NOSE: *irritation, nasal [nasal use]; rhinorrhea (runny nose) [nasal use].*

STOMACH: *nausea [parenteral use]; vomiting [parenteral use].*

GENITALIA FEMALE: *coagulation; lactation inhibitor; oxytocic* (uterine stimulant); *bleeding, uterine, unexpected* [nasal use]; *contractions, uterine, unexpected* [nasal use]; *hematoma, pelvic* (increased or continuing vaginal bleeding) [parenteral use]; *hemorrhage, postpartum* (increased or continuing vaginal bleeding) [parenteral use]; *rupture, uterine* (increased or continuing vaginal bleeding; severe pelvic or abdominal pain, can lead to maternal death) [parenteral use].

CHEST: *arrhythmias, cardiac* (fast or irregular heartbeat) [parenteral use]; *contractions, ventricular, premature* (fast or irregular heartbeat) [parenteral use]; *tachycardia, reflexive* (fast heartbeat) [parenteral use].

SKIN: *allergy* (skin rash or itching; hives) [parenteral use].

GENERALITIES: *lactation inhibitor; anaphylaxis, generalized* (difficulty in breathing; skin rash or itching; hives) [parenteral use]; *afibrinogenemia* [parenteral use]; *arrhythmias, cardiac* (fast or irregular heartbeat) [parenteral use]; *hypertension* (continuing or severe headache) [parenteral use]; *hypotension* (weakness; dizziness) [parenteral use]; *seizures* [nasal use]; *tachycardia, reflexive* (fast heartbeat) [parenteral use]; *water intoxication* (hyponatremia) (seizures; coma; confusion; continuing headache; rapid weight gain) [parenteral use].

DIAGNOSTIC TESTS: *afibrinogenemia* [parenteral use]; *water intoxication* (hyponatremia) (seizures; coma; confusion; continuing headache; rapid weight gain) [parenteral use].

Paclitaxel (Systemic)

Commercial name(s): *Taxol*.

Category: Antineoplastic.

Conventional indications: Carcinoma, ovarian, epithelial (treatment); Carcinoma, breast, node-positive (treatment adjunct); Carcinoma, breast (treatment, first-line); Carcinoma, breast (treatment, salvage); Kaposi's sarcoma, acquired immunodeficiency syndrome (AIDS)-associated (treatment); Carcinoma, lung, non-small cell (treatment); Carcinoma, bladder (treatment); Carcinoma, head and neck (treatment); Carcinoma, cervical (treatment); Carcinoma, esophageal (treatment); Carcinoma, endometrial (treatment); Carcinoma, lung, small cell (treatment); Carcinoma, prostate (treatment); Carcinoma, gastric (treatment); Carcinoma, unknown primary site (treatment); Tumors, germ cell, testicular (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: alopecia (loss of hair).

MOUTH: *mucositis* (sores in mouth and on lips; esophageal and intestinal epithelial necrosis and ulceration).

THROAT: *mucositis* (sores in mouth and on lips; esophageal and intestinal epithelial necrosis and ulceration).

STOMACH: nausea; vomiting.

ABDOMEN: *mucositis* (sores in mouth and on lips; esophageal and intestinal epithelial necrosis and ulceration).

RECTUM: diarrhea.

CHEST: *bradycardia; blocks, atrioventricular (AV); block, bundle branch; infarction, myocardial, fatal; pain, chest, atypical; tachycardia, ventricular, transient.*

EXTREMITIES: arthralgias (pain in joints, especially in arms or legs); **myalgias** (pain in muscles, especially in arms or legs); **neuropathy, peripheral, including mild paresthesia** (numbness, burning, or tingling in hands or feet; sensory neuropathy in a glove-and-stockings distribution; motor and autonomic dysfunction).

SKIN: alopecia (loss of hair).

GENERALITIES: alopecia (loss of hair); **anemia** (unusual tiredness or weakness); **arthralgias** (pain in joints, especially in arms or legs); **hypersensitivity reaction** (flushing of face; skin rash or itching; shortness of breath; rarely [with proper premedication], severe shortness of breath; severe skin reaction; dyspnea requiring bronchodilators, angioedema or generalized urticaria, chest pain); **leukopenia, with or without infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **myalgias** (pain in muscles, especially in arms or legs); **neutropenia, with or without infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination; urinary tract infections, upper respiratory infections, and sepsis, possibly fatal); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *bradycardia; hypotension; blocks, atrioventricular (AV); block, bundle branch; infarction, myocardial, fatal; extravasation, with phlebitis or cellulitis* (pain or redness at site of injection); *mucositis* (sores in mouth and on lips; esophageal and intestinal epithelial necrosis and ulceration); *tachycardia, ventricular, transient.*

DIAGNOSTIC TESTS: anemia; leukopenia, with or without infection; neutropenia, with or without infection; thrombocytopenia; *electrocardiogram (ECG), abnormal; serum hepatic enzymes, elevated; blocks, atrioventricular (AV); block, bundle branch; infarction, myocardial, fatal; tachycardia, ventricular, transient.*

Paclitaxel Protein-Bound (Systemic)

Commercial name(s): Abraxane.

Category: Antineoplastic.

Conventional indications: Carcinoma, breast (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: alopecia (loss of hair); *cerebrovascular attacks (stroke)* (confusion; difficulty in speaking; slow speech; inability to speak; inability to move arms, legs, or facial muscles; double vision; headache); *ischemic attack, transient* (confusion; numbness or tingling in face, arms or legs; trouble speaking, thinking or walking; headache).

VISION: neuropathy, sensory (blurred or double vision; loss of taste); *disturbances, ocular/visual* (blurred or loss of vision; disturbed color perception; night blindness; double vision; tunnel vision; halos around lights; overbright appearance of lights).

MOUTH: candidiasis, oral (sore mouth or tongue; white patches in mouth and/or on tongue); mucositis (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth); neuropathy, sensory (blurred or double vision; loss of taste).

STOMACH: nausea; vomiting.

RECTUM: diarrhea; mucositis (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth).

RESPIRATION: dyspnea (shortness of breath difficult or labored breathing tightness in chest wheezing); infection, respiratory tract (cough; fever; sneezing; sore throat); pneumonia (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); *pneumonia, interstitial* (cough; difficult breathing; fever; shortness of breath).

COUGH: cough.

CHEST: pneumonia (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); *arrest, cardiac* (stopping of heart; no blood pressure or pulse; unconsciousness); *bradycardia* (chest pain or discomfort; lightheadedness, dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); *emboli, pulmonary* (anxiety; chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness); *pain, chest; tachycardia, supraventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *thromboembolism, pulmonary* (pain in chest, groin, or legs, especially the calves; difficulty breathing; severe, sudden headache; slurred speech; sudden, unexplained shortness of breath; sudden loss of coordination; sudden, severe weakness or numbness in arm or leg; vision changes); *fibrosis, lung* (shortness of breath; chest pain or tightness);

pneumonia, interstitial (cough; difficult breathing; fever; shortness of breath); *pneumothorax* (sudden onset of severe breathing; difficulty severe pain in chest).

EXTREMITIES: **arthralgia/myalgia** (pain in joints, muscle pain or stiffness; difficulty in moving).

NAILS: *nail changes*.

FEVER: *neutropenia, febrile* (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness)

SKIN: **alopecia** (loss of hair).

GENERALITIES: **alopecia** (loss of hair); **anemia** (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); **arthralgia/myalgia** (pain in joints, muscle pain or stiffness; difficulty in moving); **asthenia** (lack or loss of strength); **edema** (swelling); **infections; infection, respiratory tract** (cough; fever; sneezing; sore throat); **mucositis** (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth); **neutropenia** (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat ulcers; sores, or white spots in mouth unusual bleeding or bruising; unusual tiredness or weakness); *bleeding; bradycardia* (chest pain or discomfort; lightheadedness, dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); *hypersensitivity* (difficulty in breathing or swallowing; fast heartbeat; shortness of breath; skin itching, rash, or redness swelling of face, throat, or tongue); *hypertension; hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); *injection site reaction* (bleeding, blistering, burning, coldness, discoloration of skin, feeling of pressure, hives, infection, inflammation, itching, lumps, numbness, pain, rash, redness, scarring, soreness, stinging, swelling, tenderness, tingling, ulceration, or warmth at site of injection); *neuropathy* (burning, tingling, numbness or pain in the hands, arms, feet, or legs; sensation of pins and needles; stabbing pain); *neutropenia, febrile* (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *tachycardia, supraventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *thrombosis* (tenderness, pain, swelling, warmth, skin discoloration, and prominent superficial veins over affected area); *cerebrovascular attacks (stroke)* (confusion; difficulty in speaking; slow speech; inability to speak; inability to move arms, legs, or facial muscles; double vision; headache); *ischemic attack, transient* (confusion; numbness or tingling in face, arms or legs; trouble speaking, thinking or walking; headache); suppression, bone marrow (chest pain; chills; cough or hoarseness; fever; lower back or side pain; painful or difficult urination; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness).

DIAGNOSTIC TESTS: **anemia; neutropenia; electrocardiogram (ECG), abnormal; neutropenia, febrile; tachycardia, supraventricular; thrombocytopenia;** suppression, bone marrow.

Palifermin (Systemic)

Commercial name(s): *Kepivance*.

Category: Antineoplastic adjunct; Cytoprotective agent.

Conventional indications: Mucositis, myelotoxic therapy induced.

Primary Actions or Pathogenetic Symptoms

MOUTH: discoloration, tongue; taste altered (change in taste; bad unusual or unpleasant (after) taste); thickening, tongue.

EXTREMITIES: arthralgia (pain in joints; muscle pain or stiffness; difficulty in moving).

FEVER: fever.

SKIN: erythema (flushing, redness of skin; unusually warm skin); pruritus (itching skin); rash.

GENERALITIES: arthralgia (pain in joints; muscle pain or stiffness; difficulty in moving); dysesthesias; edema (swelling); hyperesthesia (increased sensitivity to pain; increased sensitivity to touch; tingling in the hands and feet); hypertension (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); hypoaesthesia (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); pain; paresthesias (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); immunogenicity (body produces substance that can bind to drug making it less effective or cause side effects).

DIAGNOSTIC TESTS: serum lipase, elevated; serum amylase, elevated.

Palivizumab (Systemic)

Commercial name(s): *Synagis*.

Category: Immunizing agent (passive).

Conventional indications: Respiratory syncytial virus infection (prophylaxis).

Primary Actions or Pathogenetic Symptoms

EYE: angioedema (large, hive-like swelling on eyelids).

EAR: otitis media (ringing or buzzing in the ears).

NOSE: rhinitis (stuffy nose, runny nose, sneezing).

FACE: angioedema (large, hive-like swelling on face, lips).

MOUTH: angioedema (large, hive-like swelling on tongue).

THROAT: angioedema (large, hive-like swelling on throat).

STOMACH: gastroenteritis (abdominal or stomach pain, diarrhea, loss of appetite, nausea, weakness); vomiting.

ABDOMEN: gastroenteritis (abdominal or stomach pain, diarrhea, loss of appetite, nausea, weakness); hernia (abdominal pain, lump in abdomen).

RECTUM: diarrhea.

GENITALIA MALE: angioedema (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: **cyanosis** (bluish color of fingernails, lips, skin, palms, or nail beds) (in congenital heart disease patients); **infection, upper respiratory tract** (difficulty in breathing); *wheezing*; *dyspnea* (shortness of breath, difficult or labored breathing, tightness in chest wheezing); *failure, respiratory* (blue lips, fingernails, or skin, difficult or troubled breathing, irregular, fast or slow, or shallow breathing, shortness of breath).

COUGH: *cough*.

CHEST: *arrhythmia* (dizziness, fainting, fast, slow, or irregular heartbeat) (in congenital heart disease patients).

EXTREMITIES: **cyanosis** (bluish color of fingernails, lips, skin, palms, or nail beds) (in congenital heart disease patients); *angioedema* (large, hive-like swelling on hands, legs, feet); *hypotonia* (unusual weak feeling, loss of strength or energy, muscle pain or weakness).

FEVER: **fever**.

SKIN: **rash**; *pruritus* (itching skin); *urticaria* (hives or welts, itching, redness of skin, skin rash).

GENERALITIES: **cyanosis** (bluish color of fingernails, lips, skin, palms, or nail beds) (in congenital heart disease patients); **infection, upper respiratory tract** (difficulty in breathing); *arrhythmia* (dizziness, fainting, fast, slow, or irregular heartbeat) (in congenital heart disease patients); *anaphylaxis* (angioedema; dyspnea; hypotonia; pruritus; respiratory failure; unresponsiveness; urticaria); *hypersensitivity, acute* (angioedema; dyspnea; hypotonia; pruritus; respiratory failure; unresponsiveness; urticaria); *hypotonia* (unusual weak feeling, loss of strength or energy, muscle pain or weakness); *unresponsiveness*.

Palonosetron (Systemic)

Commercial name(s): *Aloxi*.

Category: Antiemetic.

Conventional indications: Nausea and vomiting, acute, cancer chemotherapy-induced (prophylaxis); Nausea and vomiting, delayed, cancer chemotherapy-induced (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety* (fear; nervousness); *euphoric mood* (happy).

VERTIGO: *dizziness*; *motion sickness* (nausea).

HEAD: **headache**.

EYE: *irritation* (red, sore eyes).

VISION: *amblyopia* (blurred vision; change in vision; impaired vision).

HEARING: *tinnitus* (continuing ringing or buzzing; unexplained noise in ears; hearing loss).

FACE: *hot flash* (feeling of warmth; redness of the face).

MOUTH: *dryness*.

EXTERNAL THROAT: *hot flash* (feeling of warmth; redness of the neck).

STOMACH: *anorexia* (loss of appetite; weight loss); *appetite decrease*; *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); *hiccups*; *motion sickness* (nausea).

ABDOMEN: *flatulence* (bloated full feeling; excess air or gas in stomach or intestines; passing gas); *pain, abdominal*.

RECTUM: **constipation** (difficulty having a bowel movement [stool]); *diarrhea*.

BLADDER: *retention, urinary* (decrease in urine volume; decrease in frequency of urination; difficulty in passing urine; [dribbling] painful urination).

URINE: *glycosuria* (sugar in the urine).

RESPIRATION: cyanosis (bluish color of fingernails, lips, skin, palms, or nail beds); gasping (gasping to breathe).

CHEST: *bradycardia* (chest pain or discomfort; lightheadedness; dizziness; fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); *arrhythmia, sinus* (fast or irregular heartbeat); *extrasystoles* (extra heartbeats); *extrasystoles, supraventricular* (rapid or irregular heartbeat); *hot flash* (feeling of warmth; redness of the upper chest); *ischemia, myocardial* (chest pain or discomfort; nausea; pain or discomfort in arms, jaw, back or neck; shortness of breath; sweating; vomiting); *tachycardia, sinus* (fast or irregular heartbeat).

EXTREMITIES: *arthralgia* (joint pain); *hot flash* (feeling of warmth; redness of the arms upper chest); cyanosis (bluish color of fingernails, lips, skin, palms, or nail beds).

SLEEP: *hypersomnia* (unusually deep sleep; unusually long duration of sleep); *insomnia* (excessive sleeping); *somnolence* (sleepiness or unusual drowsiness).

FEVER: *fever*.

SKIN: *dermatitis, allergic* (raised red swellings on the skin, the buttocks, legs or ankles; large, flat, blue or purplish patches in the skin; painful knees and ankles; fever; stomach pain; bloody or black, tarry stools; blood in urine); *rash*; pallor (paleness of skin).

GENERALITIES: *bradycardia* (chest pain or discomfort; lightheadedness; dizziness; fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); *hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); *weakness*; *acidosis, metabolic* (confusion; drowsiness; muscle tremors; nausea rapid; deep breathing; restlessness; stomach cramps; unusual tiredness; weakness); *arrhythmia, sinus* (fast or irregular heartbeat); *arthralgia* (joint pain); *electrolyte fluctuations* (confusion; irregular heartbeat; muscle cramps or pain; numbness, tingling, pain, or weakness in hands or feet; seizures; trembling; unusual tiredness or weakness; weakness and heaviness of legs); *extrasystoles, supraventricular* (rapid or irregular heartbeat); *fatigue* (tired); *flu-like syndrome* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *hot flash* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest; sudden sweating); *hyperglycemia* (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); *hypertension* (blurred vision; dizziness; nervousness ; headache; pounding in the ears; slow or fast heartbeat); *ischemia, myocardial* (chest pain or

discomfort; nausea; pain or discomfort in arms, jaw, back or neck; shortness of breath; sweating; vomiting); *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *tachycardia*, *sinus* (fast or irregular heartbeat); *vein discoloration*; *vein distention* (swelling or protruding veins); collapse; convulsions (seizures); cyanosis (bluish color of fingernails, lips, skin, palms, or nail beds).

DIAGNOSTIC TESTS: *hyperkalemia*; *acidosis*, *metabolic*; *electrolyte fluctuations*; *extrasystoles*, *supraventricular*; *glycosuria*; *hyperglycemia*; *QT prolongation*.

Pamidronate (Systemic)

Commercial name(s): *Aredia*.

Category: Bone resorption inhibitor; antihypercalcemic.

Conventional indications: Hypercalcemia, associated with neoplasms (treatment) [Pamidronate disodium]; Metastases, osteolytic (treatment adjunct); Paget’s disease of bone (treatment); Osteogenesis imperfecta (treatment) [Pamidronate disodium].

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety** (fear; nervousness); *psychosis* (feeling that others can hear your thoughts; feeling that others are watching you or controlling your behavior; feeling, seeing, or hearing things that are not there; severe mood or mental changes; unusual behavior).

HEAD: **headache**.

EYE: *angioedema* (large, hive-like swelling on eyelids); *episcleritis* (eye redness; mild eye pain or discomfort); *iritis* (sensitivity to light; tearing; throbbing pain); *scleritis* (eye redness; eye tenderness; decreased vision; increased tearing; sensitivity to light; severe eye pain); *uveitis* (eye pain; tearing; sensitivity of eye to light; redness of eye; blurred vision or other change in vision).

NOSE: **rhinitis** (stuffy nose; runny nose; sneezing); **sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *stomatitis* (swelling or inflammation of the mouth); *angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

EXTERNAL THROAT: **hyperthyroidism** (nervousness; sensitivity to heat; sweating; trouble sleeping; weight loss).

STOMACH: **anorexia** (loss of appetite; weight loss); **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); **hemorrhage, gastrointestinal** (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); **nausea; vomiting**.

ABDOMEN: **hemorrhage, gastrointestinal** (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); **pain, abdominal**.

RECTUM: **constipation; diarrhea; hemorrhage, gastrointestinal** (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

BLADDER: infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

GENITALIA MALE: angioedema (large, hive-like swelling on sex organs).

GENITALIA FEMALE: angioedema (large, hive-like swelling on sex organs).

RESPIRATION: dyspnea (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); **infection, upper respiratory** (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **rales** (small clicking, bubbling, or rattling sounds in the lung when listening with a stethoscope).

COUGH: cough.

CHEST: effusion, pleural (chest pain; shortness of breath); **fibrillation, atrial** (fast or irregular heartbeat; dizziness; fainting); **tachycardia** (fast, pounding, or irregular heartbeat or pulse); failure, cardiac (chest pain or discomfort; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; weight gain; wheezing); flutter, atrial (fast or irregular heartbeat; dizziness; fainting).

EXTREMITIES: exostosis (bone growth); **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **arthrosis** (degenerative disease of the joint); **pain, bone; stiffness, muscle; angioedema** (large, hive-like swelling on hands, legs, feet).

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep); **somnolence** (sleepiness or unusual drowsiness).

CHILL: rigors (feeling unusually cold; shivering).

FEVER: fever, transient.

GENERALITIES: exostosis (bone growth); **anemia** (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **arthrosis** (degenerative disease of the joint); **asthenia** (lack or loss of strength); **fatigue** (unusual tiredness or weakness); **fibrillation, atrial** (fast or irregular heartbeat; dizziness; fainting); **fluid overload** (decrease in amount of urine; noisy, rattling breathing; shortness of breath; swelling of fingers, hands, feet, or lower legs; troubled breathing at rest; weight gain); **granulocytopenia** (fever; chills; cough; sore throat; ulcers, sores, or white spots in mouth; shortness of breath; unusual tiredness or weakness); **hypertension** (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); **hyperthyroidism** (nervousness; sensitivity to heat; sweating; trouble sleeping; weight loss); **hypokalemia** (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); **hypomagnesemia** (drowsiness; loss of appetite; mood or mental changes; muscle spasms [tetany] or twitching; seizures; nausea or vomiting; trembling; unusual tiredness or weakness); **hypophosphatemia** (bone pain; convulsions; loss of appetite; trouble breathing; unusual tiredness or weakness); **infection, upper respiratory** (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in

breathing); **influenza-like symptoms** (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **leukopenia** (fever, chills, or sore throat); **lymphopenia** (fever, chills, or sore throat); **malaise** (general feeling of discomfort or illness; unusual tiredness or weakness); **metastases** (spread of cancer); **moniliasis** (skin rash; cracks in skin at the corners of mouth; soreness or redness around fingernails and toenails); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **pain and swelling at injection site; pain, bone; pain, unspecified; syncope** (fainting); **tachycardia** (fast, pounding, or irregular heartbeat or pulse); **thrombocytopenia** (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); edema (swelling); flutter, atrial (fast or irregular heartbeat; dizziness; fainting); neutropenia (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); uremia (ammonia-like breath odor; loss of appetite; nausea or vomiting; weight loss); *anaphylactic shock* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *hypocalcemia; anemia; fibrillation, atrial; granulocytopenia; hypokalemia; hypomagnesemia; hypophosphatemia; leukopenia; lymphopenia; thrombocytopenia; flutter, atrial; neutropenia; uremia.*

Pancrelipase (Systemic)

Commercial name(s): *Cotazym; Cotazym E.C.S. 20; Cotazym E.C.S. 8; Cotazym-65 B; Cotazym-S; Creon 10; Creon 20; Creon 5; Enzymase-16; Ilozyme; Ku-Zyme HP; Lipram 4500; Lipram-CR10; Lipram-CR20; Lipram-PN10; Lipram-PN16; Lipram-PN20; Lipram-UL12; Lipram-UL18; Lipram-UL20; Pancoate; Pancrease; Pancrease MT 10; Pancrease MT 16; Pancrease MT 20; Pancrease MT 4; Panokase; Protilase; Ultrase MT 12; Ultrase MT 20; Viokase; Zymase.*

Category: Enzyme (pancreatic) replenisher; Digestant; Diagnostic aid (pancreatic function).

Conventional indications: Pancreatic insufficiency (treatment); Steatorrhea (treatment); Pancreatic insufficiency (diagnosis).

Primary Actions or Pathogenetic Symptoms

MOUTH: *irritation* (enzymatic digestion of mucous membranes when tablet dosage form is retained in mouth).

STOMACH: *cramps; nausea; pain; stricture, gastrointestinal* (in cystic fibrosis patients receiving high potency pancrelipase for 12 months or longer).

ABDOMEN: *obstruction, intestinal; stricture, gastrointestinal* (in cystic fibrosis patients receiving high potency pancrelipase for 12 months or longer).

RECTUM: *diarrhea.*

URINE: *hyperuricosuria* (blood in urine; joint pain; swelling of feet or lower legs).

SKIN: *allergic reaction* (skin rash or hives).

GENERALITIES: *hyperuricemia* (blood in urine; joint pain; swelling of feet or lower legs); *sensitization* (shortness of breath; stuffy nose; troubled breathing; wheezing; tightness in chest) (induced by repeated inadvertent inhalation of powder dosage form or the powder from opened capsules).

DIAGNOSTIC TESTS: *hyperuricemia; hyperuricosuria.*

Pantoprazole (Systemic)

Commercial name(s): *Pantoloc; Protonix; Protonix I.V.*

Category: Gastric acid pump inhibitor; Antiulcer agent.

Conventional indications: Gastroesophageal reflux disease [GERD] (treatment) [Pantoprazole delayed-release tablets]; Gastroesophageal reflux disease [GERD] (prophylaxis); Hypersecretory conditions, gastric (treatment) [Pantoprazole for injection]; Ulcer, duodenal (treatment); Ulcer, duodenal, *Helicobacter pylori*-associated (treatment) [Pantoprazole, in combination with clarithromycin and either amoxicillin or metronidazole].

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; confusion.*

VERTIGO: *dizziness; vertigo* (dizziness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: *headache; migraine.*

EYE: *angioedema* (large, hive-like swellings on eyelids); *neuropathy, optic, anterior ischemic* (blindness; blurred vision; decreased vision; loss of vision, sudden).

VISION: *blurred vision.*

HEARING: *tinnitus* (ringing or buzzing in the ears).

NOSE: *rhinitis* (runny or stuffy nose); *sinusitis* (aching, fullness, or tension in area of affected sinus; headache; runny nose).

FACE: *angioedema* (large, hive-like swellings on face, lips).

MOUTH: *angioedema* (large, hive-like swellings on mouth, and/or tongue); *salivation, increased; speech disorder* (difficulty in speaking).

THROAT: *pharyngitis* (sore throat).

EXTERNAL THROAT: *pain, neck.*

STOMACH: *belching; dyspepsia* (indigestion); *gastroenteritis* (abdominal pain; anorexia; diarrhea; nausea; weakness); *nausea; vomiting.*

ABDOMEN: *flatulence; gastroenteritis* (abdominal pain; anorexia; diarrhea; nausea; weakness); *pain, abdominal; pancreatitis* (abdominal pain; nausea; vomiting); *failure, hepatic* (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin).

RECTUM: diarrhea; constipation; rectal disorders.

BLADDER: infection, urinary tract (difficulty in urinating; frequent urge to urinate; painful urination).

KIDNEYS: infection, urinary tract (difficulty in urinating; frequent urge to urinate; painful urination); nephritis, interstitial (bloody or cloudy urine; fever; skin rash; swelling of feet or lower legs; greatly decreased frequency of urination or amount of urine).

RESPIRATION: bronchitis (chills; cough; headache; hoarseness); dyspnea (shortness of breath); infection, upper respiratory tract (cough; runny or stuffy nose; sore throat).

COUGH: cough, increased.

CHEST: bronchitis (chills; cough; headache; hoarseness); pain, chest; tachycardia, mild (fast, pounding, or irregular heartbeat or pulse).

BACK: pain, back.

EXTREMITIES: arthralgia (pain in joints); hypertonia (muscle rigidity or stiffness); rhabdomyolysis (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness).

SLEEP: insomnia (trouble in sleeping); somnolence (sleepiness or unusual drowsiness).

SKIN: erythema multiforme (pain in joints or muscles; itching or redness of skin; bull's eye-like lesion on skin); itching; necrolysis, epidermal, toxic (itching or redness of skin; loosening and/or stripping off of top layer of skin; skin tenderness with burning); rash.

GENERALITIES: anaphylaxis (changes in facial skin color; fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; skin rash, hives, and itching); arthralgia (pain in joints); asthenia (loss of energy or strength; weakness); erythema multiforme (pain in joints or muscles; itching or redness of skin; bull's eye-like lesion on skin); flu-like syndrome (abdominal pain; chills; cough; headache; pain in joints or muscles; runny nose; sneezing; sore throat); hyperglycemia (increased frequency and volume of urination; unusual thirst); hypertonia (muscle rigidity or stiffness); hypokinesia (difficulty in moving); infection; infection, upper respiratory tract (cough; runny or stuffy nose; sore throat); injection site reaction (bleeding; blistering; burning; coldness; discoloration of skin; feeling of pressure; hives; infection; inflammation; itching; lumps; numbness; pain; rash; redness; scarring; soreness; stinging; swelling; tenderness; tingling; ulceration; warmth); jaundice (yellow eyes or skin); pain; sinusitis (aching, fullness, or tension in area of affected sinus; headache; runny nose); Stevens-Johnson syndrome (aching joints and muscles; blistering, loosening, peeling, or redness of skin; unusual tiredness or weakness); pancytopenia (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); rhabdomyolysis (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); tachycardia, mild (fast, pounding, or irregular heartbeat or pulse); vasodilation (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or lightheaded; sweating).

Pantothenic Acid (Systemic)

Other commonly used names: Calcium Pantothenate; D-pantothenic acid; Pantethine; Vitamin B₅.

Category: Nutritional supplement (vitamin).

Conventional indications: Pantothenic acid deficiency (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

No side effects have been reported with pantothenic acid.

Papaverine (Intracavernosal)

Commercial name(s): *Alapav; Pavabid.*

Category: Erectile dysfunction therapy.

Conventional indications: Erectile dysfunction (treatment); Erectile dysfunction (diagnosis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

GENITALIA MALE: **tingling at tip of penis;** *burning, mild, along penis; ejaculating, difficulty in; fibrosis* (lumps in penis); *priapism* (erection, continuing for more than 4 hours, or painful erection).

GENERALITIES: *hematoma, superficial* (bruising or bleeding at site of injection); *subcutaneous administration, inadvertent* (bruising or bleeding at site of injection; swelling at site of injection).

Papaverine (Systemic)

Commercial name(s): *Cerespan; Genabid; Pavabid; Pavabid HP; Pavacels; Pavacot; Pavagen; Pavarine; Pavased; Pavatine; Pavatym; Paverolan.*

Category: Vasodilator.

Conventional indications: Vasospasm (treatment).

Primary Actions or Pathogenetic Symptoms

VISION: blurred vision; double vision.

FACE: *flushing* [rapid parenteral administration].

ABDOMEN: *hypersensitivity, hepatic* (yellow eyes or skin).

RESPIRATION: *deep breathing* [rapid parenteral administration].

CHEST: *heartbeat, fast* [rapid parenteral administration].

SLEEP: drowsiness.

GENERALITIES: *vasodilation; heartbeat, fast* [rapid parenteral administration]; *hypotension* (dizziness) [rapid parenteral administration]; *thrombosis* (redness, swelling, or pain at injection site) [parenteral administration].

Paraldehyde (Systemic)

Commercial name(s): *Paral.*

Category: Anticonvulsant.

Conventional indications: Convulsions (treatment), or Status epilepticus (treatment) [Parenteral paraldehyde].

Primary Actions or Pathogenetic Symptoms

MIND: *clumsiness; hallucinations.*

VERTIGO: *dizziness.*

MOUTH: odor, breath, unpleasant.

STOMACH: nausea [oral use]; pain [oral use]; vomiting [oral use]; *cramps.*

BLADDER: urination, decreased.

URINE: cloudy urine.

RESPIRATION: breathing, fast and deep; shortness of breath; slow or troubled breathing.

COUGH: coughing [intravenous administration].

CHEST: heartbeat, slow.

EXTREMITIES: *clumsiness; unsteadiness; cramps, muscle; trembling.*

SLEEP: drowsiness.

PERSPIRATION: sweating, increased.

SKIN: rash.

GENERALITIES: *thrombophlebitis* (redness, swelling, or pain at injection site); *cramps, muscle; hepatitis* (yellow eyes or skin); acidosis, metabolic (confusion; muscle tremors; continuing or severe nausea or vomiting; nervousness; restlessness; irritability; severe stomach cramps); *trembling*; heartbeat, slow; weakness, severe.

DIAGNOSTIC TESTS: acidosis, metabolic; cloudy urine.

Paregoric (Systemic)

Other commonly used names: Camphorated Opium Tincture; Elixir paregoricum; Paregoric elixir; Tinctura opii camphorata.

Category: Antidiarrheal.

Conventional indications: Fulminant diarrhea (control).

Primary Actions or Pathogenetic Symptoms

MIND: nervousness; restlessness; depression, mental; confusion; unconsciousness.

VERTIGO: dizziness; feeling faint; hypotension, including orthostatic hypotension (dizziness; feeling faint; lightheadedness; unusual tiredness or weakness); lightheadedness.

EYE: pinpoint pupils.

ABDOMEN: *megacolon, toxic* (bloating; constipation; loss of appetite; nausea or vomiting; stomach pain).

RECTUM: constipation.

BLADDER: antidiuretic effect (decreased urination).

KIDNEYS: spasm, ureteral (difficult or painful urination; frequent urge to urinate).

RESPIRATION: depression, respiratory (slow or irregular breathing).

CHEST: heartbeat, slow.

SLEEP: drowsiness.

SKIN: *allergic reaction* (skin rash, hives, itching); cold, clammy skin.

GENERALITIES: **hypotension, including orthostatic hypotension** (dizziness; feeling faint; lightheadedness; unusual tiredness or weakness); **tiredness or weakness, unusual; dependence, physical, with or without psychological dependence (abstinence syndrome); histamine release** (decreased blood pressure; fast heartbeat; increased sweating; redness or flushing of face; shortness of breath, wheezing, or troubled breathing); convulsions; heartbeat, slow; weakness, severe.

Secondary Actions or Rebound Effects: *aches, body; appetite, loss of; cramps, stomach; diarrhea; fever; gooseflesh; heartbeat, fast; irritability; nausea; nervousness; pupils, unusually large; restlessness; runny nose; shivering; sneezing; sweating, increased; trembling; trouble in sleeping; vomiting; weakness, severe; yawning, increased.*

Paroxetine (Systemic)

Commercial name(s): *Paxil; Paxil CR.*

Category: Antianxiety agent; Antidepressant; Antiobsessional agent; Antipanic agent; Premenstrual dysphoric disorder (PMDD) therapy agent; Posttraumatic stress disorder therapy agent.

Conventional indications: Depressive disorder, major (treatment); Generalized anxiety disorder (treatment); Obsessive-compulsive disorder (treatment); Panic disorder (treatment); Premenstrual dysphoric disorder (treatment); Posttraumatic stress disorder (treatment); Social anxiety disorder (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *amnesia* (loss of memory; problems with memory); *concentration impaired; confusion; depersonalization* (feeling of unreality; sense of detachment from self or body); *drugged feeling; emotion, lack of; akathisia* (inability to sit still; need to keep moving; restlessness); *dysarthria* (difficulty in speaking); *lethargy* (unusual drowsiness, dullness, tiredness, weakness or feeling of sluggishness); *mania or hypomania* (talking, feeling, and acting with excitement and activity you cannot control); irritability.

VERTIGO: **dizziness**; *hypotension, postural* (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position).

HEAD: **headache**; *migraine* (headache, severe and throbbing).

EYE: *dystonia* (inability to move eyes); *mydriasis* (bigger, dilated, or enlarged pupils [black part of eye]; increased sensitivity of eyes to light); *neuritis, optic* (blindness; blue-yellow color blindness; blurred vision; decreased vision; eye pain); *oculogyric crisis* (fixed position of eye); dilated pupils (large pupils).

VISION: *abnormal vision* (changes in vision); *accommodation, abnormal* (blurred vision; change in near or distance vision; difficulty in focusing eyes); *blurred vision*.

NOSE: **sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *rhinitis* (stuffy nose; runny nose sneezing).

FACE: *dystonia* (unusual or sudden facial movements); *trismus* (difficulty opening the mouth; lockjaw; muscle spasm, especially of neck and back); flushing.

MOUTH: **dryness**; *taste perversion* (change in sense of taste); *dysarthria* (difficulty in speaking).

TEETH: *tooth disorder* (problems with tooth).

THROAT: *oropharynx disorder* (lump in throat; tightness in throat); *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: **appetite, decreased**; **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); **nausea**; **vomiting**; *appetite, increased*; *bleeding, upper gastrointestinal*.

ABDOMEN: **flatulence** (bloated, full feeling; excess air or gas in stomach or intestines; passing gas); **pain, abdominal**; *pancreatitis, acute* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); *bleeding, upper gastrointestinal*.

RECTUM: **constipation**; **diarrhea**.

BLADDER: **frequency, urinary** (problems in urinating); **retention, urinary** (problems in urinating); **urinary disorder** (trouble in urinating); *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *failure, renal, acute* (lower back/side pain; decreased frequency/amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure).

GENITALIA MALE: **anorgasmia** (decreased sexual ability); **ejaculatory disturbances** (decreased sexual ability); **impotence** (decreased sexual ability); **libido, decreased** (decreased sexual desire); **sexual dysfunction** (especially ejaculatory disturbances, impotence or anorgasmia [decreased sexual ability]); *priapism* (painful or prolonged erection of the penis).

GENITALIA FEMALE: **anorgasmia** (decreased sexual ability); **libido, decreased** (decreased sexual desire); *dysmenorrhea* (pain; cramps; heavy bleeding); *menstrual disorder* (menstrual changes); *vaginitis* (itching of the vagina or genital area; pain during sexual intercourse; thick, white vaginal discharge with no odor or with a mild odor); *eclampsia* (seizure or coma late in pregnancy); *prolactinemia* (swelling of breasts or unusual milk production).

LARYNX AND TRACHEA: *laryngismus* (spasm of throat).

RESPIRATION: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *respiratory disorder* (chest congestion; difficulty in breathing); *aveolitis, allergic* (cough; shortness of breath; troubled breathing).

COUGH: *cough increased*.

CHEST: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *pain, chest*; *palpitation* (fast or irregular heartbeat); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); *aveolitis, allergic* (cough;

shortness of breath; troubled breathing); *fibrillation, ventricular* (fainting; fast, slow, or irregular heartbeat; shortness of breath; unusual tiredness or weakness); *galactorrhea* (unexpected or excess milk flow from breasts); *hypertension, pulmonary* (shortness of breath); *prolactinemia* (swelling of breasts or unusual milk production); *tachycardia, ventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *torsade de pointes* (chest pain or discomfort; irregular or slow heart rate; fainting; shortness of breath); tachycardia, sinus (racing heartbeat).

BACK: *pain, back.*

EXTREMITIES: *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *myalgia* (muscle pain or weakness); *myasthenia* (muscle pain or weakness); *myoclonus* (muscle twitching or jerking; rhythmic movement of muscles); *myopathy* (muscle pain or weakness); *akathisia* (inability to sit still; need to keep moving; restlessness); *hypertonia* (excessive muscle tone; muscle tension or tightness; muscle stiffness); *rigidity, cogwheel* (incremental or ratchet-like movement of muscle; rigid or stiff muscles; muscle discomfort).

SLEEP: *drowsiness; somnolence* (sleepiness or unusual drowsiness); *yawn.*

DREAMS: *abnormal dreams.*

CHILL: *chills.*

FEVER: *fever.*

PERSPIRATION: *sweating.*

SKIN: *eczema* (skin rash encrusted, scaly and oozing); *photosensitivity* (increased sensitivity of skin to sunlight; itching; redness or other discoloration of skin; severe sunburn; skin rash); *rash; purpura, Henoch-Schonlein* (raised red swellings on the skin, the buttocks, legs or ankles; large, flat, blue or purplish patches in the skin; painful knees and ankles; fever; stomach pain; bloody or black, tarry stools; blood in urine); *necrosis, epidermal, toxic* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

GENERALITIES: *asthenia* (unusual tiredness or weakness); *infection* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); **trauma; tremor** (trembling or shaking); *allergic reaction, seasonal* (itching, pain, redness, or swelling of eye or eyelid; watering of eyes; troubled breathing or wheezing; severe skin rash or hives; flushing; headache; fever; chills; runny nose; increased sensitivity to sunlight; joint pain; swollen glands); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *drugged feeling; hypertension* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); *hypotension, postural* (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position); *myalgia* (muscle pain or weakness); *myasthenia* (muscle pain or weakness); *myoclonus* (muscle twitching or jerking; rhythmic movement of muscles); *myopathy* (muscle pain or weakness); *pain; palpitation* (fast or irregular heartbeat); *paresthesia* (tingling, burning, or prickling sensations); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); *vasodilation* (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or light-headedness; sweating); *weight loss or gain;*

agranulocytosis (cough or hoarseness; fever with or without chills; general feeling of tiredness or weakness; lower back or side pain; painful or difficult urination; sore throat; sores, ulcers, or white spots on lips or in mouth; unusual bleeding or bruising); *akinesia* (absence of body movements); *anaphylaxis* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *anemia, aplastic* (chest pain; chills; cough; fever; headache; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen or painful glands; tightness in chest; unusual bleeding or bruising; unusual tiredness or weakness; wheezing); *anemia, hemolytic* (back, leg, or stomach pains; bleeding gums; chills; dark urine; difficulty breathing; fatigue; fever; general body swelling; headache; loss of appetite; nausea or vomiting; nosebleeds; pale skin; sore throat; yellowing of the eyes or skin); *aplasia, bone marrow* (chest pain; chills; cough or hoarseness; fever; lower back or side pain; painful or difficult urination; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *bleeding, abnormal* (red or purple patches on skin); *bradykinesia* (slow movement; slow reflexes); *dyskinesia* (unusual or incomplete body movements); *dystonia* (unusual or sudden body or facial movements; inability to move eyes); *eclampsia* (seizure or coma late in pregnancy); *electric shock sensations*; *extrapyramidal symptoms* (akinesia or hypokinesia; dyskinesia; dystonia; dysarthria); *fibrillation, ventricular* (fainting; fast, slow, or irregular heartbeat; shortness of breath; unusual tiredness or weakness); *Guillain-Barre syndrome* (sudden numbness and weakness in the arms and legs; inability to move arms and legs); *hematopoiesis, impaired* (unusual or decreased blood cell production); *hypertonia* (excessive muscle tone; muscle tension or tightness; muscle stiffness); *hypokinesia* (decrease in body movements); *hyponatremia* (confusion; drowsiness; dryness of mouth; increased thirst; lack of energy; seizures); *neuroleptic malignant syndrome* (convulsions; difficulty in breathing; fast heartbeat; high fever; high or low blood pressure; increased sweating; loss of bladder control; severe muscle stiffness; unusually pale skin; tiredness); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *porphyria* (darkening of urine or dark urine; fluid-filled skin blisters; itching of the skin; light-colored stools; sensitivity to the sun; skin thinness; yellow eyes or skin); *prolactinemia* (swelling of breasts or unusual milk production); *purpura, Henoch-Schonlein* (raised red swellings on the skin, the buttocks, legs or ankles; large, flat, blue or purplish patches in the skin; painful knees and ankles; fever; stomach pain; bloody or black, tarry stools; blood in urine); *rigidity, cogwheel* (incremental or ratchet-like movement of muscle; rigid or stiff muscles; muscle discomfort); *serotonin syndrome* (diarrhea; fever; increased sweating; mood or behavior changes; overactive reflexes; racing heartbeat; restlessness; shivering or shaking; cardiac arrhythmias, coma, disseminated intravascular coagulation, hypertension or hypotension, renal failure, respiratory failure, seizures, or severe hyperthermia); *syndrome of inappropriate antidiuretic hormone (SIADH)* (agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness); *tachycardia, ventricular* (fainting; fast, pounding, or irregular

heartbeat or pulse; palpitations); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *torsade de pointes* (chest pain or discomfort; irregular or slow heart rate; fainting; shortness of breath); *vasculitic syndrome* (redness, soreness or itching skin; fever; sores, welting or blisters); tachycardia, sinus (racing heartbeat).

DIAGNOSTIC TESTS: *agranulocytosis; anemia, aplastic; anemia, hemolytic; aplasia, bone marrow; fibrillation, ventricular; hyponatremia; liver function tests, elevated* (lab results that show problems with liver); *pancytopenia; prolactinemia; tachycardia, ventricular; thrombocytopenia; torsade de pointes.*

Secondary Actions or Rebound Effects: **insomnia** (trouble in sleeping); **nervousness; agitation; anxiety; depression** (discouragement, feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); *hyperkinesia* (increase in body movements); *emotional lability* (crying; depersonalization; dysphoria; euphoria; mental depression; paranoia; quick to react or overreact emotionally; rapidly changing moods); *restlessness; seizures; status epilepticus* (epileptic seizure that will not stop); *unusual; tremor* (trembling or shaking).

Pegademase (Systemic)

Commercial name(s): *Adagen.*

Category: Enzyme, adenosine deaminase, replenisher.

Conventional indications: Adenosine deaminase deficiency (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache.*

GENERALITIES: *pain at site of injection.*

Pegaspargase (Systemic)

Commercial name(s): *Oncaspar.*

Category: Antineoplastic.

Conventional indications: Leukemia, acute lymphoblastic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *coma; confusion; stupor.*

STOMACH: **nausea; vomiting;** *anorexia* (lack of appetite).

ABDOMEN: **damage, liver; pancreatitis** (abdominal or stomach pain; constipation; nausea; vomiting); *hepatotoxicity* (decreases in serum albumin and serum lipoprotein levels, and increases in liver transaminase levels).

RESPIRATION: *bronchospasm.*

CHEST: *tachycardia* (fast heartbeat); *bronchospasm.*

EXTREMITIES: *arthralgia* (pain in joints or muscles); *myalgia* (pain in joints or muscles).

FEVER: fever.

SKIN: allergic reaction (skin rash).

GENERALITIES: **hyperglycemia** (blurry vision; dry mouth and skin; fatigue; increased need to urinate; increased hunger or thirst; unexplained weight loss); **malaise** (general feeling of discomfort or illness); anaphylactic reaction (difficulty in breathing or swallowing; hives; itching, especially of hands or feet; reddening of the skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); arthralgia (pain in joints or muscles); convulsions (seizures); hypoglycemia (anxiety; behavior change similar to drunkenness; blurred vision; cold sweats; confusion; cool pale skin; difficulty in concentrating; drowsiness; excessive hunger; fast heartbeat; headache; nausea; nervousness; nightmares; restless sleep; shakiness; slurred speech; unusual tiredness or weakness) (rebound effect?); hypoproteinemia; hypotension reaction (severe tiredness or weakness); myalgia (pain in joints or muscles); pain at place of injection; tachycardia (fast heartbeat); *coma*; *death*; *depression, bone marrow* (black, tarry stools; blood in urine; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); *leukopenia* (black, tarry stools; blood in urine; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); *neurotoxicity*; *septicemia* (black, tarry stools; blood in urine; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); *thrombocytopenia* (black, tarry stools; blood in urine; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising)

DIAGNOSTIC TESTS: **hyperglycemia**; hypoglycemia; hypoproteinemia; *asparaginase, plasma, sudden disappearance of or reduction of* (preceding anaphylactic-type reactions; it can occur prior to, or in the absence of, an observable clinical hypersensitivity reaction); *depression, bone marrow*; *hepatotoxicity* (decreases in serum albumin and serum lipoprotein levels, and increases in liver transaminase levels); *leukopenia*; *thrombocytopenia*.

Pegfilgrastim (Systemic)

Commercial name(s): *Neulasta*.

Category: Hematopoietic stimulant; Antineutropenic.

Conventional indications: Neutropenia, chemotherapy-related (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: **alopecia** (hair loss; thinning of hair); **headache**.

MOUTH: **mucositis** (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth); **stomatitis** (swelling or inflammation of the mouth); **taste perversion** (change in sense of taste).

STOMACH: **anorexia** (loss of appetite; weight loss); **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); **nausea**; **vomiting**.

ABDOMEN: **pain, abdominal;** *spleen, ruptured or enlarged* (pain, left upper abdominal or shoulder).

RECTUM: **constipation; diarrhea; mucositis** (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth).

RESPIRATION: *hypoxia* (bluish lips or skin); *respiratory distress syndrome, adult (ARDS)* (shortness of breath; tightness in chest; troubled breathing; wheezing).

EXTREMITIES: **arthralgia** (joint pain); **edema, peripheral** (swelling of hands, ankles, feet, or lower legs); **myalgia** (muscle soreness); **pain, bone, medullary; pain, skeletal.**

SLEEP: **insomnia** (trouble sleeping).

FEVER: **fever; fever, neutropenic.**

SKIN: **alopecia** (hair loss; thinning of hair); *rash; urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *hematopoietic stimulant; neutrophilia; alopecia* (hair loss; thinning of hair); **arthralgia** (joint pain); **fatigue; granulocytopenia** (chills; cough; fever; sore throat; ulcers; sores, or white spots in mouth); **mucositis** (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth); **pain, bone, medullary; pain, skeletal; weakness, generalized; anaphylaxis** (cough; difficulty swallowing; dizziness; fast heartbeat; hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *cytopenias; hypoxia* (bluish lips or skin); *immunogenicity, potential for.*

DIAGNOSTIC TESTS: *neutrophilia; granulocytopenia; cytopenias; hypoxia.*

Peginterferon Alfa-2a (Systemic)

Commercial name(s): *Pegasys.*

Category: Biological response modifier.

Conventional indications: Chronic hepatitis B (treatment); Chronic hepatitis C virus infection (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety** (fear; nervousness); **concentration impairment; depression** (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); **irritability; nervousness; memory impairment** (being forgetful); *mood alteration.*

VERTIGO: **dizziness.**

HEAD: **alopecia** (hair loss; thinning of hair); **headache.**

VISION: *blurred vision.*

HEARING: *impairment, hearing* (loss of hearing; changes in hearing); *loss of hearing.*

MOUTH: **dryness.**

EXTERNAL THROAT: *hypothyroidism* (constipation; depressed mood; dry skin and hair; feeling cold; hair loss; hoarseness or husky voice; muscle cramps and stiffness; slowed heartbeat; weight gain; unusual tiredness or weakness).

STOMACH: **anorexia** (loss of appetite; weight loss); **nausea**; **pain, abdominal** (stomach pain); **vomiting**; *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain).

ABDOMEN: **pain, abdominal** (stomach pain).

RECTUM: **diarrhea**.

KIDNEYS: *pyelonephritis* (chills; fever; frequent or painful urination; headache; stomach pain).

RESPIRATION: *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

COUGH: *cough*.

CHEST: *endocarditis* (chest pain or discomfort; chills; fever; heart murmur; shortness of breath); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

BACK: **pain, back**.

EXTREMITIES: **arthralgia** (muscle or joint pain); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *osteomyelitis* (increase in bone pain).

SLEEP: **insomnia** (sleeplessness; trouble sleeping; unable to sleep).

CHILL: **rigors** (feeling unusually cold; shivering).

FEVER: **pyrexia** (fever).

PERSPIRATION: **sweating, increased**.

SKIN: **alopecia** (hair loss; thinning of hair); **dermatitis** (blistering, crusting, irritation, itching, or reddening of skin; cracked, dry, scaly skin; swelling); **pruritus** (itching skin); *dryness*; *eczema*; *rash*.

GENERALITIES: **alopecia** (hair loss; thinning of hair); **arthralgia** (muscle or joint pain); **asthenia** (loss of strength or energy; muscle pain or weakness); **fatigue** (loss of strength or energy; muscle pain or weakness); **injection site reaction** (numbness; pain; rash; redness; scarring; soreness; stinging; swelling; tenderness; tingling; ulceration; warmth); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **neutropenia** (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); **pain**; *anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); *hypersensitivity reactions* (anaphylaxis; urticaria); *hypothyroidism* (constipation; depressed mood; dry skin and hair; feeling cold; hair loss; hoarseness or husky voice; muscle cramps and stiffness; slowed heartbeat; weight gain; unusual tiredness or weakness); *infection, bacterial* (sepsis; osteomyelitis; endocarditis; pyelonephritis; pneumonia); *lymphopenia* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *osteomyelitis* (increase in bone pain); *sepsis* (chills; confusion; dizziness; lightheadedness; fainting; fast heartbeat; fever; rapid, shallow breathing); *thrombocytopenia* (black, tarry, stools; chills; cough; fever; lower back or side pain; pale skin; unusual bleeding or bruising; unusual tiredness or weakness); *weight loss*.

DIAGNOSTIC TESTS: **neutropenia**; *anemia*; *lymphopenia*; *thrombocytopenia*; liver enzymes, elevated.

Peginterferon Alfa-2b (Systemic)

Commercial name(s): *PEG-Intron*.

Category: Biological response modifier.

Conventional indications: Hepatitis C, chronic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety; depression; emotional lability** (mood swings); **irritability**; *behavior, aggressive; homicidal ideation; suicidal ideation; suicide attempt*.

VERTIGO: **dizziness**.

HEAD: **alopecia** (hair loss); **headache**; *ischemic attack, transient* (difficulty speaking; numbness or loss of feeling in one or both limbs on the same side of the body; paralysis; weakness).

EYE: *ischemia, retinal* (decrease in vision; eye pain); *thrombosis, retinal vein* (decrease in vision; eye pain).

NOSE: **sinusitis** (aching, fullness, or tension in area of affected sinus; headache; runny nose).

THROAT: **pharyngitis** (sore throat).

EXTERNAL THROAT: *hypothyroidism* (constipation; drowsiness; dry hair and skin; menstrual disturbances; sensitivity to cold; unusual tiredness or weakness; weight gain); *hyperthyroidism* (diarrhea; fast or irregular heartbeat; insomnia; mood swings; muscle weakness; nervousness; restlessness; sensitivity to heat; sweating, excessive; tremors; warm, smooth, moist skin; weight loss).

STOMACH: **anorexia** (loss of appetite); **dyspepsia** (indigestion); **nausea; vomiting**.

ABDOMEN: **colitis, hemorrhagic or ulcerative** (abdominal pain; bloody diarrhea; fever); **hepatomegaly** (abdominal pain); **pain, abdominal; pancreatitis** (abdominal pain, continuing; nausea; vomiting).

RECTUM: **diarrhea**.

KIDNEYS: *nephritis, interstitial* (backache; fever; possibly decreased urine output).

COUGH: **cough**.

CHEST: *arrhythmias* (irregular heartbeat); *cardiomyopathy* (dizziness; palpitations; shortness of breath; vertigo); *infarction, myocardial* (chest pain, severe; cool, pale skin; dizziness; nausea; shortness of breath; sweating).

EXTREMITIES: **pain, musculoskeletal; hypertonia** (muscle rigidity or stiffness); *arthritis, rheumatoid* (aching, pain, and/or stiffness in joints).

SLEEP: **insomnia** (trouble in sleeping).

CHILL: **rigors** (chills).

FEVER: **fever**.

PERSPIRATION: **sweating, increased**.

SKIN: **alopecia** (hair loss); **dryness; flushing; itching; rash; psoriasis** (itching of skin); *urticaria* (hives or skin rash; itching).

GENERALITIES: **alopecia** (hair loss); **fatigue; flu-like symptoms** (abdominal pain; chills; cough; headache; pain in joints or muscles; runny nose; sneezing; sore throat);

flushing; infection, viral; injection site reaction (bruising; irritation; itching); **malaise; neutropenia** (chills or fever; cough or hoarseness; lower back or side pain; painful or difficult urination); **pain, musculoskeletal; sinusitis** (aching, fullness, or tension in area of affected sinus; headache; runny nose); **thrombocytopenia** (black, tarry stools; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); **weight loss; hypertonia** (muscle rigidity or stiffness); **hypothyroidism** (constipation; drowsiness; dry hair and skin; menstrual disturbances; sensitivity to cold; unusual tiredness or weakness; weight gain); **pain at injection site; anemia, aplastic** (headache; shortness of breath; unusual tiredness or weakness); **antibodies, low-titer neutralizing, development of; arrhythmias** (irregular heartbeat); **arthritis, rheumatoid** (aching, pain, and/or stiffness in joints); **hypersensitivity reaction** (anaphylaxis; angioedema; bronchoconstriction; urticaria); **hyperthyroidism** (diarrhea; fast or irregular heartbeat; insomnia; mood swings; muscle weakness; nervousness; restlessness; sensitivity to heat; sweating, excessive; tremors; warm, smooth, moist skin; weight loss); **infarction, myocardial** (chest pain, severe; cool, pale skin; dizziness; nausea; shortness of breath; sweating); **ischemic attack, transient** (difficulty speaking; numbness or loss of feeling in one or both limbs on the same side of the body; paralysis; weakness); **lupus erythematosus-like syndrome, systemic** (abdominal pain; loss of appetite; pain in joints; sensitivity to sunlight; shortness of breath; skin rash; thick, scaly skin; unusual tiredness or weakness; weight loss); drug addiction, relapse.
DIAGNOSTIC TESTS: neutropenia; anemia, aplastic; antibodies, low-titer neutralizing, development of.

Pegvisomant (Systemic)

Commercial name(s): Somavert.

Category: Growth hormone suppressant (acromegaly).

Conventional indications: Acromegaly, (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

NOSE: sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

FACE: edema, peripheral (bloating or swelling of face).

STOMACH: nausea.

RECTUM: diarrhea.

CHEST: pain, chest.

BACK: pain, back.

EXTREMITIES: edema, peripheral (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss).

GENERALITIES: edema, peripheral (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); **flu syndrome** (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose;

shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **hypertension** (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); **immunogenicity**; **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **injection site reaction** (Bleeding, blistering, burning, coldness, discoloration of skin; feeling of pressure; hives; infection; inflammation; itching; lumps); **injury, accidental**; **pain**; **paresthesia** (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); **sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); fatigue (unusual tiredness or weakness).

DIAGNOSTIC TESTS: liver function tests, abnormal (lab results that show problems with liver).

Pemetrexed (Systemic)

Commercial name(s): *Alimta*.

Category: Antineoplastic.

Conventional indications: Mesothelioma, pleural (treatment); Carcinoma, lung, non-small cell (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: depression (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); **mood alteration**.

HEAD: alopecia (hair loss; thinning of hair).

MOUTH: stomatitis (swelling or inflammation of the mouth); mucositis.

THROAT: dysphagia (difficulty swallowing); **esophagitis** (difficulty in swallowing; pain or burning in throat; chest pain; heartburn; vomiting; sores, ulcers, or white spots on lips or tongue or inside the mouth); **odynophagia** (pain produced by swallowing); **pharyngitis** (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache).

STOMACH: anorexia (loss of appetite; weight loss); **nausea**; **vomiting**.

RECTUM: constipation (difficulty having a bowel movement (stool)); **diarrhea without colostomy**; mucositis.

KIDNEYS: failure, renal (lower back/side pain; decreased frequency/amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure).

RESPIRATION: dyspnea (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: pain, chest.

EXTREMITIES: arthralgia (pain in joints; muscle pain or stiffness; difficulty in moving); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or

stiffness; difficulty in moving); **neuropathy** (burning, tingling, numbness or pain in the hands, arms, feet, or legs; sensation of pins and needles; stabbing pain).

FEVER: fever; *neutropenia, febrile* (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness).

SKIN: alopecia (hair loss; thinning of hair); **desquamation** (peeling of skin); **rash**.

GENERALITIES: alopecia (hair loss; thinning of hair); **anemia** (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **dehydration** (confusion; decreased urination; dizziness; dry mouth; fainting; increase in heart rate; lightheadedness; rapid breathing; sunken eyes; thirst; unusual tiredness or weakness; wrinkled skin); **edema** (swelling); **embolism** (severe headaches of sudden onset sudden; loss of coordination; pains in chest, groin, or legs, especially calves of legs; sudden onset of shortness of breath for no apparent reason; sudden onset of slurred speech; sudden vision changes); **fatigue** (unusual tiredness or weakness); **infection without neutropenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **infection with grade 3 or 4 neutropenia** (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); **leukopenia** (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **neutropenia** (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); **thrombocytopenia** (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); **thrombosis** (severe headaches of sudden onset sudden; loss of coordination; pains in chest, groin, or legs, especially calves of legs; sudden onset of shortness of breath for no apparent reason; sudden onset of slurred speech; sudden vision changes); *allergic reaction* (fainting or loss of consciousness; fast or irregular breathing; swelling of eyes or eyelids; trouble in breathing; tightness in chest, and/or wheezing; skin rash; itching); *hypersensitivity* (fainting or loss of consciousness; fast or irregular breathing; swelling of eyes or eyelids; trouble in breathing; tightness in chest, and/or wheezing; skin rash; itching); *infection/febrile neutropenia, other* (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *neutropenia, febrile* (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); bleeding associated with grade 3 thrombocytopenia; mucositis; suppression, bone marrow (neutropenia, thrombocytopenia, and anemia; infection with or without fever, diarrhea, and mucositis).

DIAGNOSTIC TESTS: anemia; leukopenia; neutropenia; thrombocytopenia; neutropenia, febrile; suppression, bone marrow.

Pemirolast (Ophthalmic)

Commercial name(s): *Alamast*.

Category: Mast cell stabilizer (ophthalmic); Antiallergic (ophthalmic).

Conventional indications: Conjunctivitis, allergic (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

EYE: burning, dryness, and discomfort of eye (burning sensation in eye; eye discomfort; dryness of eyes); sensation, foreign body.

NOSE: sinusitis (headache; pain and tenderness around eyes and cheekbones; runny or stuffy nose); sneezing and nasal congestion (stuffy nose).

GENITALIA FEMALE: dysmenorrhea (increased stomach pain and cramping; painful menstrual bleeding).

RESPIRATION: bronchitis (cough, producing mucus; difficulty breathing; tightness in chest)

COUGH: cough

CHEST: bronchitis (cough, producing mucus; difficulty breathing; tightness in chest)

BACK: pain, back

FEVER: fever

GENERALITIES: cold/flu symptoms (chills; cough; fever; headache; runny or stuffy nose; sneezing; sore throat); sinusitis (headache; pain and tenderness around eyes and cheekbones; runny or stuffy nose)

Secondary Actions or Rebound Effects: allergy (itching; redness; eyelid swelling).

Pemoline (Systemic)

Commercial name(s): *Cylert; Cylert Chewable*.

Category: Central nervous system stimulant.

Conventional indications: Attention-deficit hyperactivity disorder (ADHD) (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *central nervous system stimulant*; depression, mental; irritability, increased; hallucinations (seeing, hearing, or feeling things that are not there); agitation; coma (after seizures); confusion; euphoria (false sense of well-being); restlessness.

VERTIGO: dizziness.

HEAD: headache.

EYE: nystagmus (uncontrolled side-to-side or circular movement of eyes); mydriasis (large pupils).

MOUTH: *motor or vocal tics, or Tourette's syndrome* (movements or vocal sounds that you cannot control).

STOMACH: **anorexia** (loss of appetite); *nausea*; *stomachache*; vomiting.

ABDOMEN: *dysfunction, hepatic* (dark urine; loss of appetite; nausea and vomiting; unusual tiredness; yellow eyes or skin); *failure, hepatic, acute* (anorexia, dark urine, gastrointestinal symptoms, malaise; jaundice).

CHEST: heartbeat, fast.

EXTREMITIES: trembling, muscle; twitching, muscle.

SLEEP: **insomnia** (trouble in sleeping); *drowsiness*.

FEVER: fever, high.

PERSPIRATION: sweating.

SKIN: *rash*.

GENERALITIES: **weight loss**; *anemia, aplastic* (shortness of breath, troubled breathing, wheezing, or tightness in chest; sores, ulcers, or white spots on lips or in mouth; swollen or painful glands; unusual bleeding or bruising); *death*; *dyskinesia* (uncontrolled movements of tongue, lips, face, arms, or legs); *seizures*; *Tourette's syndrome, or motor or vocal tics* (movements or vocal sounds that you cannot control); coma (after seizures); heartbeat, fast; hypertension (high blood pressure); trembling, muscle; twitching, muscle.

DIAGNOSTIC TESTS: *liver abnormalities*; *serum ALT (SGPT) increased*.

Penciclovir (Topical)

Commercial name(s): *Denavir*.

Category: Antiviral (topical).

Conventional indications: Herpes labialis (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

MOUTH: *taste perversion* (change in sense of taste).

SKIN: *rash, erythematous* (redness of the skin).

GENERALITIES: *hypoesthesia* (abnormally decreased sensitivity, particularly to touch); *application site reaction*.

Penicillamine (Systemic)

Commercial name(s): *Cuprimine*; *Depen*.

Category: Chelating agent; Antirheumatic (disease-modifying); Antiurrolithic (cystine calculi); Antidote (to heavy metals).

Conventional indications: Wilson's disease (treatment); Arthritis, rheumatoid (treatment); Felty's syndrome (treatment); Vasculitis, rheumatoid (treatment); Cystinuria (treatment); Renal calculi, cystine, recurrence (prophylaxis); Toxicity, heavy metal (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *neuritis, optic* (eye pain, blurred vision, or any change in vision).

HEARING: *buzzing; ringing.*

MOUTH: *stomatitis* (ulcers, sores, or white spots on lips or in mouth); **taste, lessening or loss of sense of.**

STOMACH: **appetite, loss of; nausea; pain, mild; vomiting;** *ulcer, peptic, reactivation* (abdominal or stomach pain, severe).

ABDOMEN: *pancreatitis* (abdominal or stomach pain, severe).

RECTUM: **diarrhea.**

KIDNEYS: *glomerulopathy, possible impending* (bloody or cloudy urine; swelling of face, feet, or lower legs; weight gain; may progress to nephrotic syndrome).

RESPIRATION: *bronchiolitis, obstructive* (coughing, wheezing, or shortness of breath).

CHEST: *bronchiolitis, obstructive* (coughing, wheezing, or shortness of breath).

EXTREMITIES: **pemphigus foliaceus or vulgaris** (lesions on the face, neck, scalp, and/or trunk).

FEVER: **fever.**

SKIN: **pemphigus foliaceus or vulgaris** (lesions on the face, neck, scalp, and/or trunk); *dermatitis, exfoliative* (fever with or without chills; red, thickened, or scaly skin; swollen and/or painful glands; unusual bruising); *necrolysis, toxic epidermal* (redness, tenderness, itching, burning, or peeling of skin; sore throat; fever with or without chills; red or irritated eyes).

GENERALITIES: **allergic reaction** (fever; joint pain; skin rash, hives, and/or itching; swelling of lymph glands); *agranulocytosis* (sore throat and fever with or without chills; sores, ulcers, or white spots on lips or in mouth); *anemia, aplastic* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sores, ulcers, or white spots on lips or in mouth; swollen and/or painful glands; unusual bleeding or bruising; unusual tiredness or weakness); *anemia, hemolytic* (troubled breathing, exertional; unusual tiredness or weakness); *leukopenia* (usually asymptomatic; fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *thrombocytopenia* (usually asymptomatic; rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *Goodpasture's syndrome* (difficulty in breathing, spitting blood, unusual tiredness or weakness); *jaundice, cholestatic* (dark urine, itching, pale stools, yellow eyes or skin); *lupus erythematosus-like syndrome, systemic (SLE)* (skin rash, hives, and/or itching; blisters on skin; chest pain; general feeling of discomfort or illness; joint pain); *myasthenia gravis syndrome* (difficulty in breathing, chewing, talking, or swallowing; double vision; muscle weakness).

DIAGNOSTIC TESTS: *agranulocytosis; anemia, aplastic; anemia, hemolytic; leukopenia; thrombocytopenia.*

Penicillins (Systemic)

Commercial name(s): *Amoxil; Ampicin; Apo-Amoxi; Apo-Ampi; Apo-Cloxi; Apo-Pen VK; Ayercillin; Bactocill; Beepen-VK; Betapen-VK; Bicillin L-A; Cloxapen; Crysticillin 300 A.S.; Dycill; Dynapen; Fluclox; Geocillin; Geopen; Geopen Oral; Ledercillin VK; Megacillin; Mezlin; Nadopen-V; Nadopen-V 200; Nadopen-V 400; Nafcil; Nallpen; Novamoxin; Novo-Ampicillin; Novo-Cloxin; Novo-Pen-VK; Nu-Amoxi; Nu-Ampi; Nu-Cloxi;*

Nu-Pen-VK; Omnipen; Omnipen-N; Orbenin; PVF; PVF K; Pathocil; Pen Vee; Pen Vee K; Pen-Vee; Penbritin; Penglobe; Pentids; Permapen; Pfizerpen; Pfizerpen-AS; Pipracil; Polycillin; Polycillin-N; Polymox; Pondocillin; Principen; Prostaphlin; Pyopen; Selexid; Spectrobid; Staphcillin; Tegopen; Ticar; Totacillin; Totacillin-N; Trimox; Unipen; V-Cillin K; Veetids; Wycillin; Wymox.

Category: Antibacterial (systemic).

Conventional indications: Actinomycosis (treatment) [Penicillin G (parenteral) and penicillin V]; Anthrax (treatment) [Penicillin G (parenteral), penicillin V, and penicillin G procaine]; Arthritis, gonococcal (treatment) [Penicillin G (parenteral)]; Bejel (treatment) [Penicillin G benzathine and penicillin G procaine]; Bone and joint infections (treatment) [Carbenicillin (parenteral), cloxacillin (parenteral), methicillin, nafcillin (parenteral), oxacillin (parenteral), penicillin G (parenteral), and piperacillin]; Bronchitis, bacterial exacerbations (treatment) [Amoxicillin, ampicillin, bacampicillin, cloxacillin (oral), dicloxacillin, penicillin V, and pivampicillin]; Diphtheria (prophylaxis) [Penicillin G (parenteral), penicillin G benzathine, penicillin G procaine, and penicillin V]; Endocarditis, bacterial (prophylaxis) [Amoxicillin, ampicillin, penicillin G (parenteral), and penicillin V]; Endocarditis, bacterial (treatment) [Ampicillin (parenteral), carbenicillin (parenteral), cloxacillin (parenteral), methicillin, nafcillin (parenteral), oxacillin (parenteral), penicillin G (parenteral) and penicillin G procaine]; Erysipelas (treatment) [Penicillin G (parenteral), penicillin V, and penicillin G procaine]; Erysipeloid (treatment) [Penicillin G (parenteral), penicillin V, penicillin G benzathine, and [penicillin G procaine]; Gingivitis, acute, necrotizing, ulcerative (treatment) [Penicillin G (oral and parenteral), penicillin V, and penicillin G procaine]; Gonorrhea, endocervical and urethral, uncomplicated (treatment) [Amoxicillin, in combination with probenecid, and [penicillin G (parenteral)]; Intra-abdominal infections (treatment) [Carbenicillin (parenteral), mezlocillin, penicillin G (parenteral), piperacillin, and ticarcillin]; Listeriosis (treatment) [Ampicillin (parenteral) and penicillin G (parenteral)]; Meningitis, bacterial (treatment) [Ampicillin (parenteral), carbenicillin (parenteral), nafcillin (parenteral), oxacillin (parenteral), penicillin G (parenteral), piperacillin, and ticarcillin]; Otitis media, acute (treatment) [Amoxicillin, ampicillin, bacampicillin, penicillin G procaine, penicillin G (oral), penicillin V, and pivampicillin]; *Pasteurella multocida* infections (treatment) [Ampicillin (parenteral), penicillin G (parenteral), and penicillin V]; Pelvic infections, female (treatment) [Carbenicillin (parenteral), mezlocillin, piperacillin, and ticarcillin]; Pericarditis, bacterial (treatment) [Penicillin G (parenteral), penicillin G procaine, and nafcillin (parenteral)]; Pharyngitis, bacterial (treatment) [Amoxicillin, ampicillin, bacampicillin, cloxacillin (oral), dicloxacillin, flucloxacillin, penicillin G benzathine, penicillin G (oral), penicillin V, and pivampicillin]; Pinta (treatment) [Penicillin G benzathine and penicillin G procaine]; Pneumonia, bacterial (treatment) [Amoxicillin, ampicillin, bacampicillin, carbenicillin (parenteral), cloxacillin, dicloxacillin, mezlocillin, penicillin G (parenteral), penicillin G procaine, piperacillin, and ticarcillin]; Prostatitis (treatment) [Carbenicillin (oral)]; Rat-bite fever (treatment) [Penicillin G (parenteral), penicillin G procaine, and penicillin V]; Rheumatic fever (prophylaxis) [Penicillin V, and penicillin G benzathine]; Scarlet fever (treatment) [Penicillin V penicillin G procaine, and penicillin G (parenteral)]; Septicemia, bacterial (treatment) [Ampicillin (parenteral), carbenicillin (parenteral), cloxacillin (parenteral), methicillin, mezlocillin, nafcillin (parenteral), oxacillin (parenteral), penicillin

G (parenteral), penicillin G procaine, piperacillin, and ticarcillin]; Sinusitis (treatment) [Amoxicillin, ampicillin, bacampicillin, cloxacillin, flucloxacillin, methicillin, nafcillin, oxacillin, and penicillin V]; Skin and soft tissue infections (treatment) [Carbenicillin (parenteral), cloxacillin, dicloxacillin, flucloxacillin, methicillin, mezlocillin, nafcillin, oxacillin, penicillin G procaine, penicillin G (parenteral), penicillin V, piperacillin, pivampicillin, and ticarcillin]; Syphilis (treatment) [Penicillin G benzathine, Penicillin G (parenteral), penicillin G procaine]; Tetanus (treatment) [Penicillin G (parenteral)]; Ulcer, duodenal, associated with *Helicobacter pylori* (treatment) [Amoxicillin in combination with clarithromycin and lansoprazole]; Urinary tract infections, bacterial (treatment) [Amoxicillin, ampicillin, bacampicillin, carbenicillin (oral and parenteral), mezlocillin, piperacillin, pivampicillin, pivmecillinam, and ticarcillin]; Yaws (treatment) [Penicillin G benzathine, penicillin G procaine, and penicillin G (parenteral)]; Chlamydial infections in pregnant women (treatment) [Amoxicillin and ampicillin]; Gas gangrene infections (treatment) [Penicillin G (parenteral)]; Gastritis, *Helicobacter pylori* -associated (treatment adjunct) or Ulcer, peptic, *Helicobacter pylori*-associated (treatment adjunct) [Amoxicillin]; Leptospirosis (treatment) [Ampicillin (parenteral) and penicillin G (parenteral)]; Lyme disease (treatment) [Amoxicillin and penicillin V]; Typhoid fever (treatment) [Amoxicillin and ampicillin].

Primary Actions or Pathogenetic Symptoms

MIND: *mental disturbances* (anxiety; confusion; agitation or combativeness; depression; seizures; hallucinations; expressed fear of impending death).

HEAD: *headache*.

MOUTH: *candidiasis, oral* (sore mouth or tongue; white patches in mouth and/or on tongue); *taste perversion* [Amoxicillin, Clarithromycin, and Lansoprazole combination].

STOMACH: *nausea; vomiting*.

ABDOMEN: *colitis, Clostridium difficile* (severe abdominal or stomach cramps and pain; abdominal tenderness; watery and severe diarrhea, which may also be bloody; fever); *hepatotoxicity* (fever; nausea and vomiting; yellow eyes or skin).

RECTUM: *diarrhea, mild*.

KIDNEYS: *nephritis, interstitial* (fever; possibly decreased urine output; skin rash).

GENITALIA FEMALE: *candidiasis, vaginal* (vaginal itching and discharge).

SKIN: *dermatitis, exfoliative* (red, scaly skin); *hives*; *itching*; *rash*; psoriasis, psoriasiform eruption [1].

GENERALITIES: *allergic reactions* (specifically anaphylaxis; exfoliative dermatitis; serum sickness-like reactions; skin rash, hives, or itching); *anaphylaxis* (fast or irregular breathing; puffiness or swelling around face; shortness of breath; sudden, severe decrease in blood pressure); *serum sickness-like reactions* (skin rash; joint pain; fever); *jaundice, cholestatic* [Flucloxacillin]; *leukopenia* (sore throat and fever); *neutropenia* (sore throat and fever); *pain at site of injection*; *platelet dysfunction* (unusual bleeding or bruising); *seizures*; *thrombocytopenia* (unusual bleeding or bruising).

DIAGNOSTIC TESTS: *leukopenia; neutropenia; thrombocytopenia*.

Complementary Bibliography: [1] Kim GK, Del Rosso JQ. Drug-provoked psoriasis: is it drug induced or drug aggravated? Understanding pathophysiology and clinical relevance. *J Clin Aesthet Dermatol* 2010; 3(1): 32-38.

Penicillins and Beta-Lactamase Inhibitors (Systemic)

Commercial name(s): *Augmentin; Clavulin-125F; Clavulin-250; Clavulin-250F; Clavulin-500F; Tazocin; Timentin; Unasyn; Zosyn.*

Category: Antibacterial (systemic).

Conventional indications: Bone and joint infections (treatment) [Ticarcillin and clavulanate combination, and ampicillin and sulbactam combination]; Intra-abdominal infections (treatment) [Ampicillin and sulbactam combination, piperacillin and tazobactam combination, and ticarcillin and clavulanate combination]; Otitis media, acute (treatment) [Amoxicillin and clavulanate combination]; Pelvic infections, female (treatment) [Ampicillin and sulbactam combination, piperacillin and tazobactam combination, and ticarcillin and clavulanate combination]; Pneumonia, bacterial (treatment) [Amoxicillin and clavulanate combination, piperacillin and tazobactam combination, and ticarcillin and clavulanate combination]; Pneumonia, nosocomial (treatment) [Piperacillin and tazobactam combination]; Septicemia, bacterial (treatment) [Ticarcillin and clavulanate combination, and piperacillin and tazobactam combination]; Sinusitis (treatment) [Amoxicillin and clavulanate combination]; Skin and soft tissue infections (treatment) [Amoxicillin and clavulanate combination, ampicillin and sulbactam combination, piperacillin and tazobactam combination, and ticarcillin and clavulanate combination]; Urinary tract infections, bacterial (treatment) [Amoxicillin and clavulanate combination, and ticarcillin and clavulanate combination]; Bronchitis (treatment) [Amoxicillin and clavulanate combination]; Chancroid (treatment) [Amoxicillin and clavulanate combination]; Gonorrhea, endocervical and urethral (treatment) [Ampicillin and sulbactam combination]; Perioperative infection prophylaxis for colorectal surgery, abdominal hysterectomy, and high-risk cesarean section [Ticarcillin and clavulanate combination, neomycin plus erythromycin base for colorectal surgery].

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

NOSE: *epistaxis* (nosebleed).

FACE: *edema* (swelling of face).

MOUTH: *candidiasis, oral* (sore mouth or tongue; white patches in mouth and/or on tongue); *glossitis* (redness, swelling, or soreness of tongue).

STOMACH: nausea; pain; vomiting.

ABDOMEN: gas; swelling of abdomen; *colitis, Clostridium difficile* (severe abdominal or stomach cramps and pain; abdominal tenderness; watery and severe diarrhea, which may also be bloody; fever); *dysfunction, hepatic, including cholestatic hepatitis* (abdominal pain; nausea or vomiting; yellow eyes or skin).

RECTUM: diarrhea, mild.

BLADDER: *dysuria* (trouble in urinating); *retention, urinary* (trouble in urinating).

URINE: *proteinuria* (cloudy urine); *pyuria* (cloudy urine).

GENITALIA FEMALE: *candidiasis, vaginal* (vaginal itching and discharge).

CHEST: pain, chest.

EXTREMITIES: *edema* (swelling of fingers, lower legs, or feet); *relaxation, muscle, prolonged* [Piperacillin and Tazobactam Combination].

CHILL: *chills*.

SKIN: *hives; itching; rash; erythema multiforme* (blistering, peeling, or loosening of skin and mucous membranes; fever; malaise [general feeling of illness or discomfort; red skin lesions, often with a purple center]; *necrolysis, toxic epidermal* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red, irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

GENERALITIES: *allergic reactions* (specifically anaphylaxis); *anaphylaxis* (fast or irregular breathing; puffiness or swelling around face; shortness of breath; sudden, severe decrease in blood pressure); *serum sickness-like reactions* (skin rash; joint pain; fever); *thrombophlebitis* (pain, redness, and swelling at site of injection); *dysfunction, hepatic, including cholestatic hepatitis* (abdominal pain; nausea or vomiting; yellow eyes or skin); *edema* (swelling of face, fingers, lower legs, or feet; weight gain); *erythema multiforme* (blistering, peeling, or loosening of skin and mucous membranes; fever; malaise [general feeling of illness or discomfort; red skin lesions, often with a purple center]; *fatigue* (unusual tiredness or weakness); *leukopenia* (sore throat and fever); *malaise* (general feeling of discomfort or illness); *neutropenia* (sore throat and fever); *platelet dysfunction* (unusual bleeding or bruising); *relaxation, muscle, prolonged* [Piperacillin and Tazobactam combination]; *seizures*; *Stevens-Johnson syndrome* (blistering, peeling, or loosening of skin and mucous membranes; fever; malaise [general feeling of illness or discomfort]; red skin lesions, often with a purple center).

DIAGNOSTIC TESTS: *liver function tests, elevated; leukopenia; neutropenia; proteinuria; pyuria*.

Pentamidine (Inhalation)

Commercial name(s): *NebuPent; Pentacarinat; Pneumopent*.

Category: Antiprotozoal.

Conventional indications: Pneumonia, *Pneumocystis carinii* (PCP) (prophylaxis); Pneumonia, *Pneumocystis carinii* (PCP) (treatment).

Primary Actions or Pathogenetic Symptoms

MOUTH: *taste, bitter or metallic*.

THROAT: *pharyngitis* (burning pain, dryness, or sensation of lump in throat; difficulty in swallowing).

ABDOMEN: *pancreatitis* (nausea; pain in upper abdomen, possibly radiating to the back; vomiting).

KIDNEYS: *insufficiency, renal* (decreased urination; loss of appetite; nausea; unusual tiredness; with daily treatment doses only).

RESPIRATION: *dyspnea* (difficulty in breathing); *wheezing; bronchospasm*.

COUGH: *coughing*.

CHEST: **congestion chest; pain, chest;** *bronchospasm; pneumothorax* (sudden onset of severe breathing difficulty; severe pain in chest).

SKIN: **rash.**

GENERALITIES: *hypoglycemia, mild* (anxiety; chills; cold sweats; cool, pale skin; headache; increased hunger; nausea; nervousness; shakiness; with daily treatment doses only); *pneumocystosis, extrapulmonary* (most frequent sites include the spleen, liver, lymph nodes, and eyes).

DIAGNOSTIC TESTS: *hypoglycemia, mild.*

Pentamidine (Systemic)

Commercial name(s): *Pentacarinat; Pentam 300.*

Category: Antiprotozoal.

Conventional indications: Pneumonia, *Pneumocystis carinii* (treatment); Leishmaniasis, visceral (treatment); Leishmaniasis, cutaneous (treatment); Trypanosomiasis, African (treatment).

Primary Actions or Pathogenetic Symptoms

MOUTH: *taste, metallic, unpleasant.*

STOMACH: **appetite, loss of; nausea; vomiting.**

ABDOMEN: *pancreatitis* (pain in upper abdomen; nausea and vomiting).

RECTUM: **diarrhea.**

KIDNEYS: **nephrotoxicity** (decreased frequency of urination; loss of appetite; weakness).

CHEST: *arrhythmias, cardiac* (rapid or irregular pulse; ECG abnormalities; torsades de pointes).

GENERALITIES: **diabetes mellitus** (drowsiness; flushed, dry skin; fruit-like breath odor; increased thirst; increased urination; loss of appetite); **hyperglycemia** (drowsiness; flushed, dry skin; fruit-like breath odor; increased thirst; increased urination; loss of appetite); **hypoglycemia** (anxiety; chills; cold sweats; cool, pale skin; headache; increased hunger; nausea; nervousness; shakiness; direct cytolytic effect on pancreatic beta islet cells, leading to insulin release) (rebound effect?); **hypotension** (blurred vision; confusion; dizziness; fainting; lightheadedness; unusual tiredness or weakness); **leukopenia** (sore throat and fever); **neutropenia** (sore throat and fever); **thrombocytopenia** (unusual bleeding or bruising); *abscess, sterile* (pain, redness, and hardness at site of injection; with intramuscular injection); *anemia* (unusual tiredness or weakness); *arrhythmias, cardiac* (rapid or irregular pulse; ECG abnormalities; torsades de pointes); *hypersensitivity* (skin rash, redness, or itching; fever); *phlebitis* (pain at site of injection; with intravenous injection).

DIAGNOSTIC TESTS: **hyperglycemia; hypoglycemia** (rebound effect?); **liver function tests, elevated; leukopenia; neutropenia; thrombocytopenia.**

Pentetate Calcium Trisodium (Systemic)

Commercial name(s): *Pentetate calcium trisodium.*

Category: Chelating agent.

Conventional indications: Toxicity, americium (treatment); Toxicity, curium (treatment); Toxicity, plutonium (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *lightheadedness.*

HEAD: *headache.*

MOUTH: *taste, metallic.*

STOMACH: *nausea.*

RECTUM: *diarrhea.*

RESPIRATION: *wheezing.*

COUGH: *cough.*

CHEST: *pain, chest.*

SKIN: *dermatitis* (blistering, crusting, irritation, itching, or reddening of skin; cracked, dry, scaly skin; swelling).

GENERALITIES: *allergic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *injection site reaction* (bleeding, blistering, burning, coldness, discoloration of skin, feeling of pressure, hives, infection, inflammation, itching, lumps, numbness, pain, rash, redness, scarring, soreness, stinging, swelling, tenderness, tingling, ulceration, or warmth at site).

Pentetate Zinc Trisodium (Systemic)

Other commonly used names: Pentetate Zinc Trisodium (Zn-DTPA).

Commercial name(s): Generic only. No brands available.

Category: Chelating agent.

Conventional indications: Toxicity, americium (treatment); Toxicity, curium (treatment); Toxicity, plutonium (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *lightheadedness.*

HEAD: *headache.*

ABDOMEN: *pain, pelvic.*

RESPIRATION: *wheezing.*

COUGH: *cough.*

Pentosan (Systemic)

Commercial name(s): *Elmiron.*

Category: Anti-inflammatory, local (interstitial cystitis).

Conventional indications: Cystitis, interstitial (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *alopecia* (hair loss); *headache*.

EYE: *conjunctivitis* (irritated or red eyes).

VISION: *amblyopia* (vision impairment).

HEARING: *tinnitus* (ringing in the ears).

NOSE: *epistaxis* (nosebleed); *rhinitis* (runny nose).

MOUTH: *hemorrhage*, *gum* (bleeding gums); *ulcer*, *mouth* (sores in mouth).

THROAT: *esophagitis* (difficulty in swallowing); *pharyngitis* (dryness of throat; pain upon swallowing).

STOMACH: *dyspepsia* (stomach upset); *nausea*; *anorexia* (loss of appetite); *gastritis* (stomach upset); *heartburn*; *vomiting*.

ABDOMEN: *pain*, *abdominal*; *flatulence* (stomach gas).

RECTUM: *diarrhea*; *constipation*.

RESPIRATION: *dyspnea* (difficulty in breathing).

SKIN: *alopecia* (hair loss); *rash*; *allergic reaction* (skin rash or hives); *photosensitivity* (increased sensitivity of skin to sunlight); *pruritus* (itching); *urticaria* (skin rash).

GENERALITIES: *alopecia* (hair loss); *anemia* (unusual tiredness and weakness); *ecchymosis* (unusual bleeding or bruising); *leukopenia* (chills; fever; sore throat); *thrombocytopenia* (unusual bleeding or bruising).

DIAGNOSTIC TESTS: *anemia*; *leukopenia*; *thrombocytopenia*.

Pentostatin (Systemic)

Commercial name(s): *Nipent*.

Category: Antineoplastic.

Conventional indications: Leukemia, hairy cell (treatment); Leukemia, chronic lymphocytic (treatment); Leukemia, prolymphocytic (treatment); Lymphoma, cutaneous T-cell (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety*; *confusion*; *depression*, *mental*; *nervousness*; *coma* (high doses).

HEAD: *headache*.

EYE: *keratoconjunctivitis* (sore, red eyes).

VISION: *changes in vision*.

NOSE: *epistaxis* (nosebleed); *rhinitis*; *sinusitis*.

MOUTH: *stomatitis* (sores in mouth or on lips).

THROAT: *pharyngitis*.

STOMACH: *appetite*, *loss of*; *nausea*; *vomiting*; *pain*.

ABDOMEN: *impairment*, *hepatic function*; *flatulence* (bloating or gas).

RECTUM: *diarrhea*; *constipation*.

KIDNEYS: *toxicity*, *renal* (seen as increases in serum creatinine).

RESPIRATION: *bronchitis* (cough; shortness of breath); *dyspnea* (cough; shortness of breath); *pneumonia* (cough; shortness of breath).

CHEST: angina (chest pain; swelling of feet or lower legs); arrhythmias, acute (chest pain; swelling of feet or lower legs); bronchitis (cough; shortness of breath); congestive heart failure (chest pain; swelling of feet or lower legs); edema, lung; infarction, myocardial (chest pain; swelling of feet or lower legs); toxicity, pulmonary (bronchitis, dyspnea, epistaxis, lung edema, pneumonia, pharyngitis, rhinitis, or sinusitis).

BACK: pain, back.

EXTREMITIES: numbness of hands or feet; pain, muscle; tingling of hands or feet; pain, joint; thrombophlebitis (cramps in lower legs).

SLEEP: sleepiness; trouble in sleeping.

SKIN: allergic reaction (sudden skin rash or itching); rash; dryness; itching; herpes simplex; herpes zoster; inflammation of multiple actinic (solar) keratoses.

GENERALITIES: anemia; infection, possibly life threatening (bacterial, viral, or fungal; fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination; herpes simplex; herpes zoster); leukopenia (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); pain, pain, muscle; thrombocytopenia (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); tiredness, unusual; toxicity, central nervous system (CNS) (unusual tiredness; anxiety or nervousness; confusion; mental depression; numbness or tingling of hands or feet; sleepiness; trouble in sleeping; seizures, coma, and death); arrhythmias, acute (chest pain; swelling of feet or lower legs); flu-like syndrome (general feeling of discomfort or illness); infarction, myocardial (chest pain; swelling of feet or lower legs); pain, joint; sinusitis; thrombophlebitis (cramps in lower legs); weakness; weight loss; coma (high doses); death; herpes simplex; herpes zoster; inflammation of multiple actinic (solar) keratoses; seizures (high doses).

DIAGNOSTIC TESTS: anemia; leukopenia; creatinine, increases in serum; hepatic enzyme elevations, usually transient.

Pentoxifylline (Systemic)

Commercial name(s): Trental.

Category: Blood viscosity-reducing agent.

Conventional indications: Vascular disease, peripheral (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: excitement, unusual.

VERTIGO: dizziness; faintness.

HEAD: headache.

STOMACH: discomfort; nausea; vomiting.

CHEST: arrhythmias (irregular heartbeat); pain, chest.

SLEEP: drowsiness.

SKIN: flushing.

GENERALITIES: arrhythmias (irregular heartbeat); convulsions; flushing.

Perflubron (Oral-Local)

Commercial name(s): *Imagent GI*.

Category: Diagnostic aid, radiopaque (gastrointestinal disorders).

Conventional indications: Gastrointestinal imaging, magnetic resonance.

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

MOUTH: *taste, oily; numb mouth*.

STOMACH: *nausea; vomiting*.

ABDOMEN: *fullness, abdominal; pain, abdominal*.

RECTUM: *diarrhea; incontinence, rectal; flatulence, rectal; leakage of solution, rectal*.

CHILL: *chills*.

GENERALITIES: *tremors; vasodilation* (flushing or redness of skin).

Pergolide (Systemic)

Commercial name(s): *Permax*.

Category: Antidyskinetic (dopamine agonist).

Conventional indications: Parkinsonism (treatment adjunct); Restless legs syndrome (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; confusion; hallucinations* (seeing, hearing, or feeling things that are not there).

VERTIGO: *dizziness; hypotension, orthostatic*.

HEAD: *hemorrhage, cerebrovascular* (severe or continuing headache; seizures; vision changes, such as blurred vision or temporary blindness; sudden weakness).

VISION: *disturbances, visual, including diplopia* (visual changes; double vision).

NOSE: *rhinitis* (runny or stuffy nose).

FACE: *edema* (swelling of the face).

MOUTH: *dryness*.

STOMACH: *dyspepsia* (heartburn); *nausea; anorexia* (loss of appetite); *vomiting*.

ABDOMEN: *fibrosis, retroperitoneal; inflammation and fibrosis, serous* (retroperitoneal fibrosis).

RECTUM: *constipation; diarrhea*.

BLADDER: *infection, urinary tract* (bloody or cloudy urine; difficult or painful urination; frequent urge to urinate).

KIDNEYS: *infection, urinary tract* (bloody or cloudy urine; difficult or painful urination; frequent urge to urinate).

CHEST: *effusion, pericardial* (chest pain; troubled breathing); *fibrosis, pleural* (chest pain; cough; shortness of breath); *infarction, myocardial* (severe chest pain; fainting; fast heartbeat; increased sweating; continuing or severe nausea and vomiting; nervousness; unexplained shortness of breath; weakness); *infection, pleural* (chest pain; cough; fever;

troubled breathing); *inflammation and fibrosis, serous* (pleuritis; pleural infection; pleural fibrosis; pericarditis; pericardial effusion); *pleuritis* (chest pain; chills; dry cough; fever; troubled breathing); *pericarditis* (anxiety; chest pain; chills; cough; fever; troubled breathing; weakness).

BACK: pain, lower back.

EXTREMITIES: *edema, peripheral* (swelling in hands and legs).

SLEEP: drowsiness; insomnia (trouble in sleeping).

GENERALITIES: anemia (unusual tiredness or weakness); hypotension (dizziness or lightheadedness, especially when getting up from a lying or sitting position); influenza-like symptoms (headache; muscle pain; runny nose; chest congestion); weakness; hypertension (dizziness; headache); hypotension, orthostatic; infarction, myocardial (severe chest pain; fainting; fast heartbeat; increased sweating; continuing or severe nausea and vomiting; nervousness; unexplained shortness of breath; weakness); neuroleptic malignant syndrome (NMS) (difficult or unusually fast breathing [difficulty in breathing]; fast heartbeat or irregular pulse; high fever; high or low [irregular] blood pressure; increased sweating; loss of bladder control; severe muscle stiffness; seizures; unusual tiredness or weakness; unusually pale skin; rapid reduction, withdrawal, or change of dosage in Pergolide).

DIAGNOSTIC TESTS: anemia.

Secondary Actions or Rebound Effects: dyskinesias (uncontrolled movements of the body, such as the face, tongue, arms, hands, head, and upper body).

Permethrin (Topical)

Commercial name(s): Acticin Cream; Elimite Cream; Nix Cream Rinse.

Category: Pediculicide; Scabicide.

Conventional indications: Pediculosis capitis (treatment); Scabies (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: burning, itching, numbness, rash, redness, stinging, swelling, or tingling of the scalp.

Perphenazine and Amitriptyline (Systemic)

Commercial name(s): Elavil Plus; Etrafon; Etrafon-A; Etrafon-D; Etrafon-F; Etrafon-Forte; PMS Levazine; Triavil.

Category: Antipsychotic-antidepressant.

Conventional indications: Anxiety associated with mental depression (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: akathisia (restlessness or need to keep moving); confusion; delirium; hallucinations; agitation.

VERTIGO: balance control, loss of; hypotension, orthostatic (dizziness).

HEAD: headache; alopecia (hair loss).

EYE: deposition of opaque material in lens, cornea, and retina (blurred vision); inability to move eyes; retinopathy, pigmentary (blurred vision; defective color vision; difficulty seeing at night); glaucoma, aggravation of (blurred vision or other changes in vision; eye pain); pupils enlarged.

VISION: blurred vision associated with anticholinergic effect.

HEARING: *tinnitus* (ringing, buzzing, or other unexplained noises in the ears).

NOSE: congestion, nasal.

FACE: mask-like face; spasms, muscle.

MOUTH: difficulty in speaking; dryness; taste, unpleasant.

THROAT: difficulty in swallowing.

EXTERNAL THROAT: spasms, muscle, neck.

STOMACH: appetite for sweets, increased; nausea; heartburn; vomiting.

ABDOMEN: ileus, paralytic.

RECTUM: constipation; diarrhea.

BLADDER: urination, difficulty in.

GENITALIA MALE: sexual ability, decreased; priapism (prolonged, painful, inappropriate penile erection); swelling, testicular.

GENITALIA FEMALE: menstrual period, changes in; sexual ability, decreased.

RESPIRATION: shortness of breath; troubled breathing.

CHEST: heartbeat, fast, slow, or irregular; pain in breasts; secretion of milk, unusual; swelling in breasts.

BACK: spasms, muscle, back.

EXTREMITIES: akathisia (restlessness or need to keep moving); movements, tic-like or twitching; movements of body, twisting; shuffling walk; stiffness of arms or legs; trembling and shaking of hands and fingers; weakness of arms and legs; tremors, muscle (shakiness).

SLEEP: drowsiness.

FEVER: *heat stroke* (hot dry skin; inability to sweat; muscle weakness; confusion); *temperature regulation in the hypothalamus, central and peripheral, suppression of* (heat stroke); fever.

PERSPIRATION: sweating, decreased; sweating, excessive.

SKIN: sensitivity to sun, increased (rash; severe sunburn); alopecia (hair loss); melanosis (tanning or blue-gray discoloration of skin); *purpura, thrombocytopenic* (unusual bleeding or bruising).

GENERALITIES: extrapyramidal effects, dystonic (muscle spasms of face, neck, and back; tic-like or twitching movements; twisting movements of body; inability to move eyes; weakness of arms and legs); extrapyramidal effects, parkinsonian (difficulty in speaking or swallowing; loss of balance control; mask-like face; shuffling walk; stiffness of arms or legs; trembling and shaking of hands and fingers); hypotension (fainting); hypotension, orthostatic (dizziness); movements, tic-like or twitching; movements of body, twisting; shuffling walk; tardive dyskinesia (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs); tiredness or weakness, unusual, mild to severe; weight gain, unusual; allergic reaction (skin rash; itching; swelling of face and tongue); anticholinergic effects (constipation or paralytic ileus, especially in the elderly;

confusion, delirium, or hallucinations; difficulty in urination); *heartbeat, fast, slow, or irregular; tremors, muscle* (shakiness); *agranulocytosis* (chills, fever, sore throat; unusual tiredness or weakness); *alopecia* (hair loss); *anemia, hemolytic* (back, leg, or stomach pains; loss of appetite; pale skin; unusual tiredness or weakness or fever); *eosinophilia* (fever); *heat stroke* (hot dry skin; inability to sweat; muscle weakness; confusion); *jaundice, cholestatic* (abdominal or stomach pains; aching muscles and joints; fever and chills; severe skin itching; yellow eyes or skin; fatigue; nausea, vomiting, or diarrhea; may progress to chronic active hepatitis); *leukopenia* (fever, chills, or sore throat); *neuroleptic malignant syndrome (NMS)* (convulsions; difficult or fast breathing; fast heartbeat or irregular pulse; fever; high or low [irregular] blood pressure; increased sweating; loss of bladder control; severe muscle stiffness; unusually pale skin; unusual tiredness or weakness; skeletal muscle rigidity, hyperthermia, autonomic dysfunction, and altered consciousness; leukocytosis [9,500 to 26,000 cells per cubic millimeter], elevated liver enzyme tests, and elevated creatine phosphokinase [CPK]); *pancytopenia* (nosebleeds, or other unusual bleeding or bruising); *purpura, thrombocytopenic* (unusual bleeding or bruising); *seizures*; *syndrome of inappropriate secretion of antidiuretic hormone [SIADH]* (irritability; muscle twitching; weakness); convulsions.

DIAGNOSTIC TESTS: *agranulocytosis; anemia, hemolytic; eosinophilia; liver function tests, abnormal; leukopenia; pancytopenia.*

Secondary Actions or Rebound Effects: **tardive dyskinesia, persistent** (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs); *cholinergic rebound, upon abrupt withdrawal* (diarrhea; headache; trouble in sleeping, with vivid dreams; unusual excitement); *irritability* (gradual withdrawal after long-term treatment); *restlessness* (gradual withdrawal after long-term treatment); *trouble in sleeping, with vivid dreams* (gradual withdrawal after long-term treatment).

Phenazopyridine (Systemic)

Commercial name(s): *Azo-Standard; Baridium; Eridium; Geridium; Phenazo; Phenazodine; Pyridiate; Pyridium; Urodine; Urogesic; Viridium.*

Category: Analgesic (urinary).

Conventional indications: Urinary tract irritation (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache; meningitis, aseptic* (fever; confusion).

EYE: *discoloration of eyes, yellowish.*

STOMACH: *cramps; indigestion; pain.*

ABDOMEN: *hepatotoxicity* (yellow eyes or skin).

KIDNEYS: *failure, renal function* (increased blood pressure; shortness of breath; troubled breathing; tightness in chest, and/or wheezing; sudden decrease in amount of urine; swelling of face, fingers, feet, and/or lower legs ; thirst, continuing; unusual tiredness or

weakness; weight gain); *impairment, renal function* (increased blood pressure; shortness of breath; troubled breathing; tightness in chest, and/or wheezing; sudden decrease in amount of urine; swelling of face, fingers, feet, and/or lower legs ; thirst, continuing; unusual tiredness or weakness; weight gain).

SKIN: *pruritus* (itching of the skin); *dermatitis, allergic* (skin rash); *discoloration of skin, yellowish*.

GENERALITIES: *anaphylactoid-like reaction; anemia, hemolytic* (troubled breathing, exertional; unusual tiredness or weakness); *methemoglobinemia* (blue or blue-purple discoloration of skin; shortness of breath).

DIAGNOSTIC TESTS: *anemia, hemolytic; methemoglobinemia*.

Phenolsulfonphthalein (Systemic)

Other commonly used names: Phenol red; PSP.

Category: Diagnostic aid (renal function; residual bladder urine).

Conventional indications: Renal function studies; Bladder urine, residual, determinations.

Primary Actions or Pathogenetic Symptoms

GENERALITIES: *idiosyncratic reaction* (skin rash or itching; wheezing).

Phenothiazines (Systemic)

Commercial name(s): *Apo-Fluphenazine; Apo-Perphenazine; Apo-Thioridazine; Apo-Trifluoperazine; Chlorpromanyl-20; Chlorpromanyl-40; Chlorpromazine Hydrochloride Intensol; Compazine; Compazine Spansule; Largactil; Largactil Liquid; Largactil Oral Drops; Majeptil; Mellaril; Mellaril Concentrate; Mellaril-S; Modecate; Modecate Concentrate; Moditen Enanthate; Moditen HCl; Neuleptil; Novo-Chlorpromazine; Novo-Ridazine; Novo-Trifluzine; Nozinan; Nozinan Liquid; Nozinan Oral Drops; Nu-Prochlor; PMS Fluphenazine; PMS Perphenazine; PMS Prochlorperazine; PMS Thioridazine; PMS Trifluoperazine; Permitil; Permitil Concentrate; Piportil L; Prolixin; Prolixin Concentrate; Prolixin Decanoate; Prolixin Enanthate; Serentil; Serentil Concentrate; Stelazine; Stelazine Concentrate; Stemetil; Stemetil Liquid; Thorazine; Thorazine Spansule; Trilafon; Trilafon Concentrate; Vesprin.*

Category: Antipsychotic [Chlorpromazine ; Fluphenazine; Mesoridazine; Methotrimeprazine; Perphenazine; Pipotiazine ; Prochlorperazine; Promazine; Thioproperazine; Thioridazine; Trifluoperazine; Triflupromazine]; Antipsychotic adjunct [Pericyazine]; Antiemetic [Chlorpromazine ; Methotrimeprazine; Perphenazine; Prochlorperazine; Trifluoperazine; Triflupromazine]; Analgesic [Methotrimeprazine]; Sedative [Chlorpromazine; Methotrimeprazine; Thioridazine]; Antidyskinetic (Huntington's chorea) [Chlorpromazine; Thioridazine]; Antineuralgia adjunct [Fluphenazine]; Anesthetic adjunct [Chlorpromazine; Methotrimeprazine (intravenous)].

Conventional indications: Psychotic disorders (treatment) [Chlorpromazine, fluphenazine, mesoridazine, methotrimeprazine, perphenazine, pipotiazine, prochlorperazine, promazine, thioproperazine, thioridazine, trifluoperazine, and triflupromazine]; Psychotic disorders

(treatment adjunct) [Pericyazine]; Nausea and vomiting (treatment) [Prochlorperazine, chlorpromazine, methotrimeprazine, perphenazine, trifluoperazine, and triflupromazine]; Pain (treatment) [Methotrimeprazine]; Sedation [Methotrimeprazine]; Anesthesia, general, adjunct [Chlorpromazine and intravenously-administered methotrimeprazine]; Tetanus (treatment adjunct) [Chlorpromazine]; Porphyria, acute, intermittent (treatment) [Chlorpromazine]; Migraine headaches (treatment) [Chlorpromazine]; Hiccups, intractable (treatment) [Chlorpromazine]; Pain, neurogenic (treatment adjunct) [Fluphenazine]; Huntington's disease, choreiform movement of (treatment) [Chlorpromazine and thioridazine]; Behavior problems, severe (treatment) [Chlorpromazine, fluphenazine, mesoridazine, thioridazine, and trifluoperazine].

Primary Actions or Pathogenetic Symptoms

MIND: *sedation* (peacefulness, serenity, calm); **akathisia** (restlessness or need to keep moving); agitation; coma; confusion; disorientation; stupor.

VERTIGO: **balance control, loss of; hypotension, orthostatic** (dizziness); *dizziness*.

EYE: **deposition of opaque material in lens and cornea; inability to move eyes; keratopathy, epithelial; retinopathy, pigmentary** (blurred vision; defective color vision; difficulty seeing at night); *photophobia* (increased sensitivity of eyes to light); *deposition of a phenothiazine in the eye* (eventually can lead to damage of the rods and cones and to blindness); pupils, dilated.

VISION: **blurred vision associated with anticholinergic effect;** blurred vision.

NOSE: **congestion, nasal.**

FACE: **mask-like face; spasms, muscle** (unusual expressions on face).

MOUTH: **dryness; sticking out of tongue; trouble or difficulty in speaking;** *papillae of the tongue, hypertrophic* (rough or "fuzzy" tongue); *salivation, increased* (watering of mouth).

THROAT: **trouble or difficulty in swallowing.**

EXTERNAL THROAT: **spasms, muscle, neck** (unusual postures).

STOMACH: *nausea; pain; vomiting.*

ABDOMEN: *ileus, paralytic* (severe constipation).

RECTUM: **constipation;** *obstipation* (severe constipation).

BLADDER: *urinating, difficulty in.*

URINE: *dark urine.*

GENITALIA MALE: *sexual ability, decreased; priapism* (prolonged, painful, inappropriate penile erection).

GENITALIA FEMALE: *menstrual period, changes in; sexual ability, decreased.*

RESPIRATION: **trouble in breathing;** *pneumonia* (chest pain; shortness of breath); depression, respiratory (trouble in breathing).

CHEST: *pain in breasts; secretion of milk, unusual; swelling in breasts; pneumonia* (chest pain; shortness of breath); *QT prolongation and torsades de pointes* (irregular or slow heart rate; recurrent fainting; sudden death); arrest, cardiac; arrhythmia, cardiac; congestive heart failure; edema, pulmonary (trouble in breathing); fibrillation, ventricular (fainting; fast, slow, or irregular heartbeat; shortness of breath; unusual tiredness or weakness); tachycardia.

EXTREMITIES: *akathisia* (restlessness or need to keep moving); **movements, tic-like or twitching; movements of body, twisting; shuffling walk; spasms, muscle, body, arms, or legs** (unusual postures); **stiffness of arms or legs; trembling and shaking of hands and fingers;** rigidity, muscle.

SLEEP: *sedation* (peacefulness, serenity, calm); **drowsiness.**

FEVER: *fever, mild* (after intramuscular injection of a phenothiazine); *fever, significant; heatstroke* (hot dry skin; inability to sweat; muscle weakness; confusion); *hypothermia* (clumsiness; confusion; drowsiness; muscle weakness; shivering); *temperature regulation dysfunction* (heatstroke; hypothermia); *temperature regulation in the hypothalamus, central and peripheral, suppression of;* hyperpyrexia (fever).

PERSPIRATION: **sweating, decreased.**

SKIN: *photosensitivity* (skin rash; severe sunburn); *rash; melanosis* (tanning or blue-gray discoloration of skin; on exposed areas of the body).

GENERALITIES: *analgesia* (pain absence) [Methotrimeprazine]; *anesthesia* [Chlorpromazine; Methotrimeprazine (intravenous)]; **anticholinergic effects** (constipation; decreased sweating; dizziness [orthostatic hypotension]; drowsiness; dry mouth); **extrapyramidal effects, dystonic** (muscle spasms of face, neck, body, arms, or legs, causing unusual postures or expressions on face; sticking out of tongue; tic-like or twitching movements; trouble in breathing, speaking, or swallowing; twisting movements of body; inability to move eyes); **extrapyramidal effects, parkinsonian** (difficulty in speaking or swallowing; loss of balance control; mask-like face; shuffling walk; stiffness of arms or legs; trembling and shaking of hands and fingers); **hypotension** (fainting); **hypotension, orthostatic** (dizziness); **movements, tic-like or twitching; movements of body, twisting; shuffling walk; spasms, muscle, body** (unusual postures); *weight gain, unusual;* *agranulocytosis* (sore throat; fever; unusual bleeding or bruising; unusual tiredness or weakness); *heatstroke* (hot dry skin; inability to sweat; muscle weakness; confusion); *hypotensive crisis, acute;* *hypothermia* (clumsiness; confusion; drowsiness; muscle weakness; shivering); *jaundice, cholestatic* (abdominal or stomach pains ; aching muscles and joints; fever and chills; severe skin itching; yellow eyes or skin ; fatigue; nausea, vomiting, or diarrhea; may progress to chronic active hepatitis); *leukocytopenia* (sore throat; fever; unusual bleeding or bruising; unusual tiredness or weakness); *lupus erythematosus-like syndrome, systemic* (fever; hair loss; headaches; increased sensitivity of skin to sunlight; joint pain; redness of hands; skin rash; sores in mouth; unusual tiredness or weakness); *neuroleptic malignant syndrome (NMS)* (difficult or fast breathing; drooling; fast heartbeat; fever; high or low [irregular] blood pressure; impaired consciousness, ranging from confusion to coma; increased sweating; loss of bladder control; severe muscle stiffness; trembling or shaking; trouble in speaking or swallowing; skeletal muscle rigidity, hyperthermia, autonomic dysfunction, and altered consciousness; leukocytosis (9500 to 26,000 cells per cubic millimeter), elevated liver enzyme tests, and elevated creatine kinase (CK)); *seizures;* *thrombocytopenia* (sore throat; fever; unusual bleeding or bruising; unusual tiredness or weakness); areflexia (loss of reflexes); arrhythmia, cardiac; coma; convulsions; death; hyperreflexia (increase in reflexes); rigidity, muscle; shock; tachycardia.

DIAGNOSTIC TESTS: *agranulocytosis; dark urine; leukocytopenia; liver function tests, abnormal; QT prolongation and torsades de pointes; thrombocytopenia; QRS changes.*

Secondary Actions or Rebound Effects: **tardive dyskinesia** (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms or legs); **tardive dystonia** (unusual facial expressions or body positions; increased blinking or spasms of eyelid; uncontrolled twisting movements of neck, trunk, arms, or legs); *paradoxical effects* (aggravation of psychosis; agitation; bizarre dreams; excitement; insomnia [trouble in sleeping]).

Phenoxybenzamine (Systemic)

Commercial name(s): *Dibenzylamine*.

Category: Antihypertensive (pheochromocytoma); Benign prostatic hypertrophy therapy.

Conventional indications: Pheochromocytoma (treatment); Benign prostatic hypertrophy (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion*.

VERTIGO: **hypotension, postural** (dizziness or lightheadedness, especially when getting up from a lying or sitting position).

HEAD: *headache*.

EYE: **miosis** (pinpoint pupils).

NOSE: **congestion, nasal** (stuffy nose).

MOUTH: *dryness*.

GENITALIA MALE: *ejaculate, inability to* (caused by alpha-adrenergic blockade).

CHEST: **tachycardia, reflex** (fast heartbeat).

SLEEP: *drowsiness*.

GENERALITIES: **hypotension; hypotension, postural** (dizziness or lightheadedness, especially when getting up from a lying or sitting position); **tachycardia, reflex** (fast heartbeat); *energy, lack of; tiredness or weakness, unusual*.

Phentolamine (Intracavernosal)

Commercial name(s): *Rogitine*.

Category: Erectile dysfunction therapy.

Conventional indications: Erectile dysfunction (treatment); Erectile dysfunction (diagnosis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

GENITALIA MALE: **tingling at tip of penis; burning, mild, along penis; ejaculating, difficulty in; fibrosis** (lumps in penis); *priapism* (erection, continuing for more than 4 hours, or painful erection).

GENERALITIES: hematoma, superficial (bruising or bleeding at site of injection); subcutaneous administration, inadvertent (bruising or bleeding at site of injection, swelling at site of injection).

Phentolamine (Systemic)

Commercial name(s): Rogitine.

Category: Antiadrenergic; Antihypertensive.

Conventional indications: Hypertension, paroxysmal, in surgery for pheochromocytoma (prophylaxis and treatment); Necrosis, dermal (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

MIND: excitation.

VERTIGO: hypotension, orthostatic (chills or cold sweats; confusion or fainting; dizziness or light-headedness, especially when getting up from a lying or sitting position).

HEAD: occlusion, cerebrovascular (confusion, severe or sudden headache, sudden loss of coordination, sudden slurring of speech); spasm, cerebrovascular (confusion, severe or sudden headache, sudden loss of coordination, sudden slurring of speech); headache.

EYE: contraction, papillary.

VISION: visual disturbances.

NOSE: stuffiness, nasal.

FACE: flushing; redness.

STOMACH: nausea; vomiting.

ABDOMEN: pain, abdominal.

RECTUM: diarrhea.

CHEST: tachycardia, reflex (fast or irregular heartbeat); arrhythmias, cardiac; infarction, myocardial (chest pain, sudden shortness of breath).

PERSPIRATION: sweating.

GENERALITIES: cholinergic-like effect (antiadrenergic); hypotension; tachycardia, reflex (fast or irregular heartbeat); weakness; arrhythmias, cardiac; hypotension, orthostatic (chills or cold sweats; confusion or fainting; dizziness or light-headedness, especially when getting up from a lying or sitting position); death; infarction, myocardial (chest pain, sudden shortness of breath); hypoglycemia; shock.

DIAGNOSTIC TESTS: hypoglycemia.

Phenylephrine (Nasal)

Commercial name(s): Alconefrin Nasal Drops 12; Alconefrin Nasal Drops 25; Alconefrin Nasal Drops 50; Alconefrin Nasal Spray 25; Doktors; Duration; Neo-Synephrine Nasal Drops; Neo-Synephrine Nasal Jelly; Neo-Synephrine Nasal Spray; Neo-Synephrine Pediatric Nasal Drops; Nostril Spray Pump; Nostril Spray Pump Mild; Rhinall; Rhinall-10 Children's Flavored Nose Drops; Vicks Sinex.

Category: Decongestant (topical).

Conventional indications: Congestion, nasal (treatment); Congestion, sinus (treatment); Congestion, eustachian tube (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness.*

VERTIGO: *dizziness.*

HEAD: *headache.*

NOSE: *burning, dryness, or stinging of nasal mucosa.*

CHEST: *heartbeat, fast, irregular, or pounding.*

SLEEP: *trouble in sleeping.*

PERSPIRATION: *sweating, increased.*

SKIN: *paleness.*

GENERALITIES: *heartbeat, fast, irregular, or pounding; paleness; trembling.*

Secondary Actions or Rebound Effects: *congestion, rebound (increase in runny or stuffy nose).*

Phenylephrine (Ophthalmic)

Commercial name(s): *Ak-Dilate; Ak-Nefrin; Dilatair; Dioneprine; I-Phrine; Isopto Frin; Minims Phenylephrine; Mydfrin; Neo-Syneprine; Neofrin; Ocu-Phrin Sterile Eye Drops; Ocu-Phrin Sterile Ophthalmic Solution; Ocugestrin; Phenoptic; Prefrin Liquifilm; Relief Eye Drops for Red Eyes; Spersaphrine.*

Category: *Mydriatic; Decongestant (ophthalmic); Diagnostic aid (mydriatic).*

Conventional indications: *Uveitis with posterior synechiae (treatment); Synechiae, posterior (prophylaxis); Mydriasis, preoperative; Mydriasis, in diagnostic procedures; Ocular redness (treatment).*

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

EYE: *mydriasis (extensive pupils); browache; burning; sensitivity to light; stinging; watering; irritation not present before therapy (rebound effect?).*

CHEST: *heartbeat, fast, irregular, or pounding.*

PERSPIRATION: *sweating, increase in*

SKIN: *paleness.*

GENERALITIES: *blood pressure, increase in; heartbeat, fast, irregular, or pounding; paleness; trembling.*

Phosphates (Systemic)

Commercial name(s): *K-Phos M. F; K-Phos Neutral; K-Phos No. 2; K-Phos Original; Neutra-Phos; Neutra-Phos-K; NeutraPhos; Uro-KP-Neutral.*

Category: Acidifier (urinary) [Monobasic Potassium Phosphate; Potassium and Sodium Phosphates]; Antiurolithic (calcium calculi) [Monobasic Potassium Phosphate; Potassium and Sodium Phosphates]; Electrolyte replenisher [Potassium Phosphates; Potassium and Sodium Phosphates; Sodium Phosphates].

Conventional indications: Hypophosphatemia (prophylaxis and treatment); Urinary tract infections (treatment adjunct); Renal calculi, calcium (prophylaxis) [Potassium and sodium phosphates combination and monobasic potassium phosphate].

Primary Actions or Pathogenetic Symptoms

STOMACH: *nausea; pain; vomiting.*

RECTUM: *diarrhea; laxative effect.*

URINE: *acid urine* [Monobasic Potassium Phosphate; Potassium and Sodium Phosphates].

EXTREMITIES: *tetany, hypocalcemic* (convulsions, muscle cramps, numbness, tingling, pain, or weakness in hands or feet; shortness of breath, tremor or troubled breathing).

GENERALITIES: *calcification, metastatic; fluid retention* (swelling of feet or lower legs; weight gain); *hyperkalemia* (confusion; tiredness or weakness; irregular or slow heartbeat; numbness or tingling around lips, hands, or feet; unexplained anxiety; weakness or heaviness of legs; shortness of breath or troubled breathing); *hypernatremia* (confusion; tiredness or weakness; convulsions; decrease in amount of urine or in frequency of urination; fast heartbeat; headache or dizziness; increased thirst); *hyperphosphatemia* (convulsions, muscle cramps, numbness, tingling, pain, or weakness in hands or feet; shortness of breath, tremor or troubled breathing); *tetany, hypocalcemic* (convulsions, muscle cramps, numbness, tingling, pain, or weakness in hands or feet; shortness of breath, tremor or troubled breathing).

DIAGNOSTIC TESTS: *acid urine* [Monobasic Potassium Phosphate; Potassium and Sodium Phosphates]; *hyperkalemia; hypernatremia; hyperphosphatemia.*

Physostigmine (Ophthalmic)

Commercial name(s): *Eserine Salicylate; Eserine Sulfate; Isopto Eserine.*

Category: Antiglaucoma agent (ophthalmic); Miotic.

Conventional indications: Glaucoma, open-angle (treatment); Glaucoma, angle-closure, *during or after* iridectomy (treatment); Glaucoma, secondary (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache.*

EYE: *hypotension; miosis* (constriction of the pupil of the eye); **pain;** *browache; burning; irritation; redness; stinging; twitching of eyelids; watering.*

VISION: *blurred vision; change in near or distant vision.*

MOUTH: *watering.*

STOMACH: *cramps; nausea; pain; vomiting.*

RECTUM: *diarrhea.*

BLADDER: *control, bladder, loss of.*

RESPIRATION: *shortness of breath; wheezing.*

CHEST: *heartbeat, slow or irregular; tightness in chest.*

EXTREMITIES: *weakness, muscle.*

PERSPIRATION: *sweating, increased.*

GENERALITIES: *heartbeat, slow or irregular; tiredness or weakness, unusual; weakness, muscle.*

Physostigmine (Systemic)

Commercial name(s): *Antilirium.*

Category: Cholinergic (cholinesterase inhibitor); Antidote (to anticholinergics).

Conventional indications: Toxicity, anticholinergic agent (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness; restlessness.*

EYE: *pupils, unusually small; watering, unusual.*

MOUTH: *watering, increased.*

STOMACH: *cramps; nausea; pain; vomiting.*

RECTUM: *diarrhea.*

BLADDER: *urinate, frequent urge to.*

RESPIRATION: *shortness of breath; troubled breathing; wheezing; difficulty in breathing (too rapid intravenous administration).*

EXPECTORATION: *secretions, bronchial, increase in.*

CHEST: *heartbeat, irregular; tightness in chest; heartbeat, slow (too rapid intravenous administration).*

EXTREMITIES: *twitching, muscle.*

PERSPIRATION: *sweating, increased.*

GENERALITIES: *heartbeat, irregular; tiredness or weakness, unusual; twitching, muscle; convulsions (too rapid intravenous administration).*

Pilocarpine (Ophthalmic)

Commercial name(s): *Adorbocarpine; Akarpine; Isopto Carpine; Minims Pilocarpine; Miocarpine; Ocu-Carpine; Ocusert Pilo-20; Ocusert Pilo-40; P.V. Carpine Liquifilm; Pilagan; Pilocar; Pilopine HS; Piloptic-1; Piloptic-1/2; Piloptic-2; Piloptic-3; Piloptic-4; Piloptic-6; Pilostat; Spersacarpine.*

Category: Antiglaucoma agent (ophthalmic); Miotic.

Conventional indications: Glaucoma, open-angle (treatment); Glaucoma, angle-closure (treatment); Glaucoma, angle-closure, *during* or *after* iridectomy (treatment); Glaucoma, secondary (treatment); Miosis induction, postoperative; Miosis induction, following ophthalmoscopy.

Primary Actions or Pathogenetic Symptoms

MIND: *agitation; confusion; delusion; depression; hallucination, visual.*

HEAD: *headache.*

EYE: *hypotension; miosis* (constriction of the pupil of the eye); *browache; irritation; pain; congestion, ciliary; cysts, iris; glaucoma, malignant; macular hole.*

VISION: *blurred vision; change in near or far vision; night vision, decrease in.*

EAR: *middle ear disturbance.*

MOUTH: *watering.*

STOMACH: *nausea; vomiting.*

RECTUM: *diarrhea.*

RESPIRATION: *troubled breathing; wheezing.*

CHEST: *block, atrioventricular.*

EXTREMITIES: *tremors, muscle.*

PERSPIRATION: *sweating, increased.*

SKIN: *dermatitis.*

GENERALITIES: *shock; tremors, muscle.*

Pilocarpine (Systemic)

Commercial name(s): *Salagen.*

Category: Cholinergic.

Conventional indications: Xerostomia (treatment); Xerophthalmia (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; depression; confusion.*

VERTIGO: *syncope.*

HEAD: *headache; seborrhea.*

EYE: *pain; glaucoma.*

VISION: *amblyopia* (trouble seeing); visual disturbance, continuing or severe (trouble seeing, continuing or severe).

HEARING: *deafness.*

NOSE: *rhinitis* (runny nose); *epistaxis* (nosebleeds).

FACE: *edema* (swelling of face).

MOUTH: *speech disorder.*

THROAT: *dysphagia* (trouble swallowing); *voice change; esophagitis.*

STOMACH: *dyspepsia* (indigestion); *nausea; vomiting; anorexia*; spasm, gastrointestinal (stomach cramps or pain).

ABDOMEN: spasm, gastrointestinal (stomach cramps or pain).

RECTUM: *diarrhea.*

BLADDER: *frequency, urinary* (increased need to urinate; passing urine more often); *dysuria; impairment, urinary.*

GENITALIA FEMALE: *metrorrhagia.*

RESPIRATION: *stridor*; distress, respiratory (shortness of breath or troubled breathing).

CHEST: *tachycardia* (fast heartbeat); *infarction, myocardial* (in underlying cardiovascular disease patient); arrhythmia (irregular heartbeat, continuing or severe); block, atrioventricular (chest pain or fainting); bradycardia (slow heartbeat, continuing or severe).

EXTREMITIES: *edema* (swelling of fingers, ankles, or feet).

CHILL: chills.

FEVER: *hypothermia*.

PERSPIRATION: sweating.

SKIN: *seborrhea*.

GENERALITIES: **flu-like syndrome** (cough; fever; joint pain; muscle aches and pains; unusual tiredness or weakness); **vasodilation** (feeling of warmth or heat; flushing or redness of skin especially on face and neck); *asthenia* (unusual weak feeling); *edema* (holding more body water; swelling of face, fingers, ankles, or feet); *hypertension*; *tachycardia* (fast heartbeat); *tremors* (trembling or shaking); *hyperkinesia*; *hypoesthesia*; *hypothermia*; *infarction*, *myocardial* (in underlying cardiovascular disease patient); *leukopenia*; *lymphadenopathy*; *paresthesias*; arrhythmia (irregular heartbeat, continuing or severe); bradycardia (slow heartbeat, continuing or severe); death; hypotension (tiredness or weakness, continuing or severe); shock (fainting or tiredness or weakness, continuing or severe).

DIAGNOSTIC TESTS: *electrocardiogram abnormality*; *leukopenia*.

Pimecrolimus (Topical)

Commercial name(s): *Elidel*.

Category: Immunomodulator (topical).

Conventional indications: Dermatitis, atopic, mild to moderate (treatment); Dermatitis, atopic, mild to moderate (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: **folliculitis** (burning, itching, and pain in hairy areas; pus at root of hair); **headache**; *congestion*, *sinus* (stuffy nose; headache).

EYE: *herpes simplex* (burning or stinging of skin; painful cold sores or blisters on eyes); *infection*, *eye* (blurred vision or other change in vision; eye pain; redness of eye; sensitivity of eye to light; tearing); *edema*, *angioneurotic* (large, hive-like swelling on eyelids); *irritation*, *ocular* (burning, stinging, itching, or mild discomfort of the eye; after application of the cream to eyelids or near eyes).

EAR: **infection**, **ear** (change in hearing; earache or pain in ear; ear drainage; fever); *earache* (earache, redness or swelling in ear); *otitis media* (earache, redness or swelling in ear).

NOSE: **nasopharyngitis** (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache); *congestion*, *nasal* (stuffy nose); *congestion*, *sinus* (stuffy nose; headache); *epistaxis* (bloody nose); *herpes simplex* (burning or stinging of skin; painful cold sores or blisters on nose); *sinusitis* (pain or tenderness around eyes and cheekbone; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

FACE: *herpes simplex* (burning or stinging of skin; painful cold sores or blisters on lips); *edema* (swelling or puffiness of face); *edema*, *angioneurotic* (large, hive-like swelling on face, lips); *flushing* (feeling of warmth; redness of the face; associated with alcohol use).

MOUTH: *edema*, *angioneurotic* (large, hive-like swelling on tongue).

TEETH: *toothache*.

THROAT: **nasopharyngitis** (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache); **pharyngitis**, **streptococcal** (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); **soreness**; **tonsillitis** (congestion; fever; sore throat; swollen glands); *edema, angioneurotic* (large, hive-like swelling on throat).

EXTERNAL THROAT: *flushing* (feeling of warmth; redness of the neck; associated with alcohol use).

STOMACH: **gastroenteritis** (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *pain, abdominal* (stomach pain); *nausea; vomiting*.

ABDOMEN: **gastroenteritis** (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *pain, abdominal* (stomach pain).

RECTUM: **diarrhea**; *constipation* (difficulty having a bowel movement [stool]) (rebound effect?).

STOOL: *loose stools*.

GENITALIA MALE: *herpes simplex* (burning or stinging of skin; painful cold sores or blisters on genitals); *edema, angioneurotic* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *dysmenorrhea* (pain; cramps; heavy bleeding); *herpes simplex* (burning or stinging of skin; painful cold sores or blisters on genitals); *edema, angioneurotic* (large, hive-like swelling on sex organs).

RESPIRATION: **bronchitis** (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); **infection, upper respiratory tract** (ear congestion; nasal congestion; chills; cough; fever; sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *asthma* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); *wheezing* (difficulty in breathing or troubled breathing).

COUGH: *cough*.

CHEST: **bronchitis** (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *asthma* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); *flushing* (feeling of warmth; redness of the upper chest; associated with alcohol use).

BACK: *pain, back*.

EXTREMITIES: *arthralgias* (pain in joints; muscle pain or stiffness; difficulty in moving); *edema, angioneurotic* (large, hive-like swelling on hands, legs, feet); *flushing* (feeling of warmth; redness of the arms; associated with alcohol use).

FEVER: **pyrexia** (fever).

SKIN: **application site pruritus** (itching skin at site); **infection, skin** (itching; pain; redness; swelling; tenderness; warmth on skin); *acne* (blemishes on the skin; pimples); *application site erythema* (flushing; redness of skin; unusually warm skin at site);

dermatitis, herpes simplex (blistering, crusting, irritation, itching, or reddening of skin; swelling; fever); *herpes simplex* (burning or stinging of skin; painful cold sores or blisters on lips, nose, eyes, or genitals); *impetigo* (bacterial skin infection); *laceration* (tearing of skin); *papilloma* (lump or growth on skin); *urticaria* (hives or welts; itching; redness of skin; skin rash); *carcinoma, basal cell* (sore that will not heal; growth or bump on skin); *carcinoma, squamous cell* (small, red skin lesion, growth, or bump usually on face, ears, neck, hands or arms); *flushing* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest; associated with alcohol use); *melanoma, malignant* (new mole; change in size, shape or color of existing mole; mole that leaks fluid or bleeds).

GENERALITIES: **application site reaction** (burning; itching; redness; skin rash; swelling or soreness at site); **infection, upper respiratory tract** (ear congestion; nasal congestion; chills; cough; fever; sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **infection, viral** (chills; cough or hoarseness; fever; cold or flu-like symptoms); **influenza** (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *arthralgias* (pain in joints; muscle pain or stiffness; difficulty in moving); *chickenpox* (skin rash on face, scalp, or stomach); *herpes simplex* (burning or stinging of skin; painful cold sores or blisters on lips, nose, eyes, or genitals); *hypersensitivity* (fast heartbeat; fever; hives; itching; irritation; hoarseness; joint pain, stiffness or swelling; rash; redness of skin; shortness of breath; swelling of eyelids, face, lips, hands, or feet; tightness in chest; troubled breathing or swallowing; wheezing); *impetigo* (bacterial skin infection); *infection, bacterial* (chills; cough or hoarseness; fever; cold or flu-like symptoms); *molluscum contagiosum* (itchy, raised, round, smooth, skin-colored bumps found on just one area of the body; oozing, thick, white fluid); *sinusitis* (pain or tenderness around eyes and cheekbone; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *anaphylactic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *cancer* (cutaneous tumors, lymph node/cutaneous tumor); *carcinoma, basal cell* (sore that will not heal; growth or bump on skin); *carcinoma, squamous cell* (small, red skin lesion, growth, or bump usually on face, ears, neck, hands or arms); *flushing* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest; associated with alcohol use); *lymphomas* (swollen glands; weight loss; general feeling of illness; black, tarry stools; yellow skin and eyes); *tumors* (basal cell carcinoma and squamous cell carcinoma; granulomatous lymphadenitis).

Pimozide (Systemic)

Commercial name(s): *Orap*.

Category: Antidyskinetic (Gilles de la Tourette's syndrome); Antipsychotic.

Conventional indications: Gilles de la Tourette's syndrome (treatment); Psychotic disorders (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **akathisia** (restlessness or need to keep moving); **behavior changes**; **mood changes**; depression, mental; dysphoria (anxiety, crying spells, fearfulness, irritability, and social withdrawal); coma.

VERTIGO: **balance control, loss of**; **hypotension, orthostatic** (dizziness, lightheadedness, or fainting when getting up from a lying or sitting position).

HEAD: headache.

EYE: inability to move eyes.

VISION: **blurred vision**; **vision problems**.

FACE: **facial expression, lack of**; spasms, muscle, face.

MOUTH: **difficulty in speaking**; **dryness**.

THROAT: difficulty in swallowing.

EXTERNAL THROAT: spasms, muscle, especially of the neck.

STOMACH: appetite, loss of; nausea; vomiting.

RECTUM: **constipation**; diarrhea.

GENITALIA MALE: sexual ability, decreased.

GENITALIA FEMALE: menstrual changes; sexual ability, decreased.

RESPIRATION: depression, respiratory (troubled breathing).

CHEST: **arrhythmias, ventricular** (dizziness or fainting; fast or irregular heartbeat; seen on ECG as prolonged QT interval as well as lowered and inverted T-wave and S-T segment changes); **secretion of milk, unusual** (rare in males); **soreness of breasts** (less frequent in males); **swelling of breasts** (less frequent in males).

BACK: spasms, muscle, back.

EXTREMITIES: **akathisia** (restlessness or need to keep moving); **movements, slowed**; **shuffling walk**; **stiffness of arms and legs**; **trembling and shaking of fingers and hands**; movements of the body, twisting; spasms, muscle.

SLEEP: **drowsiness**.

SKIN: **discoloration**.

GENERALITIES: **arrhythmias, ventricular** (dizziness or fainting; fast or irregular heartbeat; seen on ECG as prolonged QT interval as well as lowered and inverted T-wave and S-T segment changes); **extrapyramidal effects, parkinsonian** (difficulty in speaking; loss of balance control; lack of facial expression; shuffling walk; slowed movements; stiffness of arms and legs; trembling and shaking of fingers and hands); **hypotension, orthostatic** (dizziness, lightheadedness, or fainting when getting up from a lying or sitting position); **movements, slowed**; **shuffling walk**; asthenia (tiredness or weakness); extrapyramidal effects, dystonic (difficulty in swallowing; inability to move eyes; muscle spasms, especially of the face, neck, or back; twisting movements of the body); movements of the body, twisting; spasms, muscle; weight, loss of; allergic reaction (skin rash and itching; swelling of face); blood dyscrasias (sore throat and fever; unusual bleeding or bruising); deaths, sudden, unexplained; jaundice, obstructive (yellow eyes or skin); neuroleptic malignant syndrome (NMS), potentially fatal (convulsions; difficult or unusually fast breathing; fast heartbeat or irregular pulse; high fever; high or low [irregular] blood pressure; increased sweating; loss of bladder control; severe muscle stiffness; elevated creatine kinase (CK), myoglobinuria (rhabdomyolysis), and acute renal failure);

coma; extrapyramidal reactions (muscle trembling, jerking, or stiffness; uncontrolled movements); hypotension (dizziness); seizures.

DIAGNOSTIC TESTS: **arrhythmias, ventricular;** electrocardiogram (ECG) abnormalities.

Secondary Actions or Rebound Effects: *tardive dyskinesia* (lip smacking or puckering ; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs); *dyskinesia, withdrawal emergent* (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs); *tardive dystonia* (increased blinking or spasms of eyelid; unusual facial expressions or body positions; uncontrolled twisting movements of neck, trunk, arms, or legs).

Pioglitazone (Systemic)

Commercial name(s): *Actos*.

Category: Antidiabetic agent.

Conventional indications: Diabetes, type 2 (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

NOSE: sinusitis (runny or stuffy nose).

TEETH: tooth disorders.

THROAT: pharyngitis (sore throat).

RESPIRATION: infection, upper respiratory tract (cough; fever; runny or stuffy nose; sore throat).

CHEST: congestive heart failure (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing).

EXTREMITIES: myalgia (muscle soreness).

GENERALITIES: diabetes mellitus aggravated (blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; loss of consciousness; nausea; stomachache; sweating; troubled breathing; unexplained weight loss; vomiting) (rebound effect?); infection, upper respiratory tract (cough; fever; runny or stuffy nose; sore throat); myalgia (muscle soreness); sinusitis (runny or stuffy nose); *anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); *edema* (swelling); hepatitis; hypoglycemia; weight gain.

DIAGNOSTIC TESTS: *anemia*; hepatic enzyme elevations; hypoglycemia.

Piperazine (Systemic)

Commercial name(s): *Entacyl*.

Category: Anthelmintic (systemic).

Conventional indications: Ascariasis (treatment); Enterobiasis (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

VISION: *blurring of vision.*

FACE: *movement, choreiform* (irregular, twisting movement especially of the face and extremities).

STOMACH: *disturbances, gastrointestinal* (abdominal cramps or pain; diarrhea; nausea; vomiting).

ABDOMEN: *disturbances, gastrointestinal* (abdominal cramps or pain; diarrhea; nausea; vomiting).

RESPIRATION: depression, respiratory (difficulty in breathing).

EXTREMITIES: *weakness, muscle; ataxia* (clumsiness); *movement, choreiform* (irregular, twisting movement especially of the face and extremities).

SLEEP: *drowsiness.*

GENERALITIES: *tremors; weakness, muscle; hypersensitivity* (fever; joint pain; skin rash or itching); *movement, choreiform* (irregular, twisting movement especially of the face and extremities); *paresthesia* (crawling or tingling sensation of the skin); seizures.

Plicamycin (Systemic)

Commercial name(s): *Mithracin.*

Category: Antineoplastic; Antihypercalcemic; Antihypercalciuric; Bone resorption inhibitor.

Conventional indications: Carcinoma, testicular (treatment); Hypercalcemia, associated with neoplasms (treatment); Hypercalciuria, associated with neoplasms (treatment); Paget's disease of bone (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental.*

HEAD: *headache.*

NOSE: *nosebleed.*

MOUTH: irritation; soreness.

THROAT: *sore throat and fever*

STOMACH: **anorexia** (loss of appetite); **nausea; vomiting; vomiting of blood;** bleeding, gastrointestinal (bloody or black, tarry stools; vomiting of blood).

ABDOMEN: bleeding, gastrointestinal (bloody or black, tarry stools; vomiting of blood); hepatotoxicity (yellow eyes or skin).

RECTUM: **diarrhea;** bleeding, gastrointestinal (bloody or black, tarry stools; vomiting of blood).

STOOL: *stools, bloody or black, tarry.*

URINE: *hypocalciuric.*

EXTREMITIES: *exostosis* (bone growth).

SLEEP: *drowsiness*.

FEVER: *fever, sore throat and fever*.

SKIN: bleeding, petechial (small red spots on skin); necrolysis, toxic epidermal (flushing or redness or swelling of face; skin rash).

GENERALITIES: *exostosis* (bone growth); *hypocalcemia* (muscle and abdominal cramps); *hypocalciuric*; *pain, redness, soreness, or swelling at injection site*; *tiredness or weakness, unusual*; *bleeding, unusual*; *bruising, unusual*; hemorrhagic diathesis; leukopenia (sore throat and fever); thrombocytopenia (unusual bleeding or bruising).

DIAGNOSTIC TESTS: *hypocalcemia*; *hypocalciuric*; leukopenia (sore throat and fever); thrombocytopenia.

Pneumococcal Conjugate Vaccine (Systemic)

Commercial name(s): *Prevnar*.

Category: Immunizing agent (active).

Conventional indications: Pneumococcal disease (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: irritability.

STOMACH: appetite, decreased; vomiting.

RECTUM: diarrhea (increase in bowel movements; loose stools; soft stools).

SLEEP: drowsiness; restless sleep.

FEVER: fever of less than 39° C (102.2° F); *fever over 39° C (102.2° F)*.

SKIN: *hives*; *rash*.

GENERALITIES: redness, soreness, hard lump, swelling, or pain at injection site; *hypotonic-hyporesponsive episode* (collapse or shock-like state); *seizures* (convulsions).

Pneumococcal Vaccine Polyvalent (Systemic)

Commercial name(s): *Pneumovax 23*; *Pnu-Imune 23*.

Category: Immunizing agent (active).

Conventional indications: Pneumococcal disease (prophylaxis).

Primary Actions or Pathogenetic Symptoms

EXTREMITIES: *arthralgia* (aches or pain in joints or muscles); *myalgia* (aches or pain in muscles).

FEVER: *fever of 38.3° C (101° F) or less*; *fever over 39° C (102.2° F)*.

SKIN: *rash*.

GENERALITIES: redness, soreness, hard lump, swelling, or pain at injection site; *adenitis* (swollen glands); *arthralgia* (aches or pain in joints or muscles); *asthenia* (unusual tiredness or weakness); *malaise* (vague feeling of bodily discomfort); *myalgia* (aches or pain in muscles); *anaphylactic reaction* (difficulty in breathing or swallowing; hives;

itching, especially of soles or palms; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe).

Podofilox (Topical)

Commercial name(s): *Condylox*.

Category: Antimitotic agent (topical).

Conventional indications: Condyloma acuminatum (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache [gel].

MOUTH: ulcers, oral.

STOMACH: vomiting; nausea.

RECTUM: diarrhea.

URINE: hematuria (bloody urine).

GENITALIA MALE: pain during sexual intercourse; **phimosis** (problems with foreskin of penis).

GENITALIA FEMALE: pain during sexual intercourse.

SLEEP: insomnia (trouble in sleeping).

SKIN: bleeding of skin, local; burning feeling of skin, local; chafing, local; desquamation, local (peeling of treated skin); dryness, local; erosion, local (skin ulcers); inflammation of skin, local (redness or swelling of skin); itching of skin, local; pain of skin, local; scarring of skin; soreness, local; stinging, local; tenderness, local; tingling, local; vesicle formation (blistering, crusting, or scabbing of treated skin); discoloration of skin, local (changes in color of treated skin) [gel]; rash [gel].

GENERALITIES: malodor (bad odor); depression, bone marrow (chills; fever; sore throat; unusual bleeding or bruising).

DIAGNOSTIC TESTS: hematuria; depression, bone marrow.

Podophyllum (Topical)

Commercial name(s): *Podocon-25; Podofin*.

Category: Cytotoxic (topical).

Conventional indications: Condyloma acuminatum (treatment); Epitheliomatosis, multiple superficial (treatment); Keratoses, pre-epitheliomatosis (treatment); Papilloma, of the larynx, juvenile (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: clumsiness; confusion; excitement; hallucinations; irritability; nervousness.

HEAD: toxicity, cerebral (manifested by altered sensorium ranging from mild confusion to coma).

EYE: irritation.

MOUTH: irritation, mucous membranes.

STOMACH: nausea; pain; vomiting.

ABDOMEN: *hepatotoxicity*; ileus, paralytic (constipation; nausea and vomiting; pain in upper abdomen or stomach, mild, dull, and continuing); pain, abdominal.

RECTUM: diarrhea.

KIDNEYS: *failure, renal*.

RESPIRATION: breathing, difficulty in.

EXTREMITIES: clumsiness; neuropathy, peripheral (numbness, tingling, pain, or weakness in hands or feet); unsteadiness; weakness, muscle.

SLEEP: drowsiness.

SKIN: *burning of affected area; irritation of affected area; itching; rash; redness of affected area*.

GENERALITIES: *death; irritation, mucous membranes; toxicity, systemic*; leukopenia (sore throat and fever); neuropathy, autonomic (difficult or painful urination; dizziness or lightheadedness, especially when getting up from a lying or sitting position; fast heartbeat); reflexes, decreased or loss of; seizures; thrombocytopenia (unusual bleeding or bruising); weakness, muscle.

DIAGNOSTIC TESTS: *electroencephalogram (EEG) shows generalized slowing*; leukopenia; thrombocytopenia.

Poliovirus Vaccine (Systemic)

Commercial name(s): *Ipol; Orimune*.

Category: Immunizing agent (active).

Conventional indications: Poliomyelitis (prophylaxis) [poliovirus vaccine live oral (OPV), poliovirus vaccine inactivated (IPV), or poliovirus vaccine inactivated enhanced potency (eIPV)].

Primary Actions or Pathogenetic Symptoms

MIND: irritability.

STOMACH: **anorexia** (loss of appetite).

FEVER: **fever over 39°C (102°F)**.

GENERALITIES: **fatigue** (tiredness); *allergic reaction, delayed-type, cell-mediated* (itching or skin rash) [injection]; *redness, soreness, hard lump, tenderness, or pain at injection site; anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of soles or palms; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *poliomyelitis, paralytic, vaccine-associated* (VAPP) [OPV].

Poliovirus Vaccine Live Oral (Systemic)

Commercial name(s): *Orimune*.

Category: Immunizing agent (active).

Conventional indications: Poliomyelitis (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: irritability.

STOMACH: anorexia.

GENERALITIES: tiredness; *anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of soles or palms; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *poliomyelitis, paralytic, vaccine-associated* (VAPP) [OPV].

Polyethylene Glycol and Electrolytes (Local)

Commercial name(s): *Colyte; Colyte with Flavor Packs; GoLYTELY; MoviPrep; NuLYTELY; NuLYTELY Cherry; NuLYTELY Lemon Lime; NuLYTELY Orange; NuLYTELY with Flavor Packs; PEG-3350 with Electrolytes; TriLyte with Flavor Packs; Colonic Lavage Solution; Go-Evac; Co-Lav; MiraLax (obsolete); Colyte Flavored; GaviLyte-N; GaviLyte-C; GaviLyte-G.*

Category: Evacuant (bowel).

Conventional indications: Bowel evacuation, preoperative; Bowel evacuation, pre-radiography.

Primary Actions or Pathogenetic Symptoms

STOMACH: nausea; *cramps; vomiting.*

ABDOMEN: bloating; *cramps, abdominal.*

RECTUM: *irritation, anal.*

CHEST: *asystole, cardiac* (after a large bowel movement).

FEVER: *hypothermia.*

SKIN: *allergic reaction* (skin rash).

GENERALITIES: *hypothermia.*

Porfimer (Systemic)

Commercial name(s): *Photofrin.*

Category: Antineoplastic.

Conventional indications: Carcinoma, esophageal (treatment); Carcinoma, lung, non-small cell (NSCLC) (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *discomfort, ocular; photophobia* (eye pain when looking at bright light, including vehicle headlights); photosensitivity (blistering of skin; increased sensitivity of eyes to sunlight or other bright lights, including vehicle headlights; increased sensitivity of skin to sunlight or bright indoor light; ocular discomfort; reddening of skin; swelling of skin).

VISION: *abnormal vision; diplopia* (double vision).

FACE: edema (swelling of face).

MOUTH: candidiasis (white patches inside the mouth); **mucositis resulting in edema, exudates, and airway obstruction** (shortness of breath or troubled breathing).

THROAT: **edema, esophageal** (difficulty in swallowing); *dysphagia* (difficulty in swallowing); *perforation, esophageal* (chest pain, severe; troubled breathing; swelling of the neck; vomiting).

STOMACH: **nausea, mild; vomiting, mild; ulcer, gastric** (severe abdominal or stomach pain).

ABDOMEN: **pain, abdominal; ileus** (abdominal pain, severe; constipation, severe; vomiting); *peritonitis* (abdominal or stomach pain, severe; chills; nausea and vomiting, severe).

RECTUM: **constipation, mild; diarrhea.**

BLADDER: **infection, urinary tract** (difficult, burning, or painful urination; frequent urge to urinate; bloody or cloudy urine).

KIDNEYS: **infection, urinary tract** (difficult, burning, or painful urination; frequent urge to urinate; bloody or cloudy urine).

RESPIRATION: **dyspnea** (troubled breathing); **mucositis resulting in edema, exudates, and airway obstruction** (shortness of breath or troubled breathing); **pneumonia** (cough; fever; shortness of breath; tightness in chest or wheezing); **stricture, endobronchial** (troubled breathing; reported only with treatment for NSCLC); *bronchospasm* (wheezing; shortness of breath); *failure, respiratory* (troubled breathing).

COUGH: **hemoptysis** (spitting blood; reported only with treatment for NSCLC); *coughing*.

CHEST: **effusion, pleural** (chest pain); **failure, heart** (shortness of breath; swelling of the feet and lower legs); **fibrillation, atrial** (fast or irregular heartbeat); **hemoptysis** (spitting blood; reported only with treatment for NSCLC); **mucositis resulting in edema, exudates, and airway obstruction** (shortness of breath or troubled breathing); **pain, chest; pneumonia** (cough; fever; shortness of breath; tightness in chest or wheezing); **stricture, endobronchial** (troubled breathing; reported only with treatment for NSCLC); *angina pectoris* (chest pain); *bronchospasm* (wheezing; shortness of breath); *edema, pulmonary* (wheezing; shortness of breath); *ulceration, endobronchial* (painful and/or difficult breathing; reported only with treatment for NSCLC); *inflammation, mediastinal*.

EXTREMITIES: **edema** (swelling of feet or lower legs).

SLEEP: **insomnia** (trouble in sleeping).

FEVER: **fever.**

SKIN: **photosensitivity reaction** (blistering, reddening, and/or swelling of skin); photosensitivity (blistering of skin; increased sensitivity of eyes to sunlight or other bright lights, including vehicle headlights; increased sensitivity of skin to sunlight or bright indoor light; ocular discomfort; reddening of skin; swelling of skin).

GENERALITIES: **anemia** (unusual tiredness or weakness); **asthenia** (weakness); **edema** (swelling of face; swelling of feet or lower legs; unusual weight gain); **fibrillation, atrial** (fast or irregular heartbeat); **hypertension; hypotension** (dizziness; fainting); *jaundice* (yellow eyes or skin); *bleeding, possibly fatal; inflammatory response, local* (in or around the region of illumination).

DIAGNOSTIC TESTS: **fibrillation, atrial.**

Potassium Iodide (Systemic)

Commercial name(s): *Iosat; Pima; Thyro-Block.*

Category: Antihyperthyroid agent; Radiation protectant (thyroid gland); Thyroid inhibitor; Antifungal (systemic); Iodine replenisher.

Conventional indications: Hyperthyroidism (treatment); Radiation protection, thyroid gland; Erythema nodosum (treatment); Iodine deficiency (treatment); Sporotrichosis, cutaneous lymphatic (treatment); Thyroid involution, preoperative.

Primary Actions or Pathogenetic Symptoms

HEAD: *head cold, symptoms of; headache, severe.*

FACE: *angioedema* (swelling of the face, lips).

MOUTH: *burning of mouth; soreness of gums and teeth; taste, metallic; watering, increased; angioedema* (swelling of the tongue).

TEETH: *soreness of teeth and gums.*

THROAT: *burning of throat; angioedema* (swelling of the throat).

EXTERNAL THROAT: *hypothyroidism.*

STOMACH: *irritation, gastric; nausea; pain; vomiting.*

RECTUM: *diarrhea.*

EXTREMITIES: *angioedema* (swelling of the arms, legs); *arthralgia* (joint pain).

SKIN: *lesions; urticaria* (hives).

GENERALITIES: *head cold, symptoms of; hypothyroidism; iodism* (burning of mouth or throat; gastric irritation; increased watering of mouth; metallic taste; severe headache; skin lesions; soreness of teeth and gums; symptoms of head cold); *allergic reactions* (angioedema); *arthralgia* (joint pain); *eosinophilia; swelling of lymph nodes; toxicity, potassium* (confusion; irregular heartbeat; numbness, tingling, pain, or weakness in hands or feet; unusual tiredness; weakness or heaviness of legs; with prolonged use).

Potassium Supplements (Systemic)

Commercial name(s): *Apo-K; Cena-K; Effer-K; Gen-K; Glu-K; K+ 10; K+ Care; K+ Care ET; K-10; K-8; K-Dur; K-Electrolyte; K-G Elixir; K-Ide; K-Lease; K-Long; K-Lor; K-Lyte; K-Lyte DS; K-Lyte/Cl; K-Lyte/Cl 50; K-Lyte/Cl Powder; K-Med 900; K-Norm; K-Sol; K-Tab; K-Vescent; KCL 5%; Kalium Durules; Kaochlor 10%; Kaochlor S-F 10%; Kaochlor-10; Kaochlor-20; Kaon; Kaon-Cl; Kaon-Cl 20% Liquid; Kaon-Cl-10; Kato; Kay Ciel; Kaylixir; Klor-Con 10; Klor-Con 8; Klor-Con Powder; Klor-Con/25 Powder; Klor-Con/EF; Klorvess; Klorvess 10% Liquid; Klorvess Effervescent Granules; Klotrix; Kolyum; Micro-K; Micro-K 10; Micro-K LS; Neo-K; Potasalan; Potassium-Rougier; Potassium-Sandoz; Roychlor-10%; Rum-K; Slow-K; Ten-K; Tri-K; Twin-K.*

Category: Antihypokalemic; Electrolyte replenisher.

Conventional indications: Hypokalemia (treatment); Hypokalemia (prophylaxis).

Primary Actions or Pathogenetic Symptoms

THROAT: *irritation, contact, of the alimentary tract* (continuing abdominal or stomach pain, cramping, or soreness; chest or throat pain, especially when swallowing; stools containing fresh or digested blood).

STOMACH: **discomfort, mild** [oral dosage forms]; **gas, mild** [oral dosage forms]; **nausea** [oral dosage forms]; **pain, mild** [oral dosage forms]; **vomiting** [oral dosage forms]; *irritation, contact, of the alimentary tract* (continuing abdominal or stomach pain, cramping, or soreness; chest or throat pain, especially when swallowing; stools containing fresh or digested blood).

ABDOMEN: *irritation, contact, of the alimentary tract* (continuing abdominal or stomach pain, cramping, or soreness; chest or throat pain, especially when swallowing; stools containing fresh or digested blood).

RECTUM: **diarrhea** [oral dosage forms]; *irritation, contact, of the alimentary tract* (continuing abdominal or stomach pain, cramping, or soreness; chest or throat pain, especially when swallowing; stools containing fresh or digested blood).

GENERALITIES: **hyperkalemia** (confusion; irregular or slow heartbeat; numbness or tingling in hands, feet, or lips; shortness of breath or difficult breathing; unexplained anxiety; unusual tiredness or weakness; weakness or heaviness of legs; severe muscle weakness).

DIAGNOSTIC TESTS: **hyperkalemia**.

Pralidoxime (Systemic)

Commercial name(s): *Protopam Chloride*.

Category: Antidote (to organophosphate pesticides); Antidote (to organophosphate chemicals); Antidote (to cholinesterase inhibitors).

Conventional indications: Toxicity, organophosphate pesticide (treatment adjunct); Toxicity, organophosphate chemical (treatment adjunct); Toxicity, cholinesterase inhibitor (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

VISION: **accommodation, impaired** (difficulty in focusing eyes); **blurred vision; double vision**.

STOMACH: nausea.

LARYNX AND TRACHEA: **laryngospasm** (difficulty in speaking or breathing).

RESPIRATION: **hyperventilation** (rapid breathing); **laryngospasm** (difficulty in speaking or breathing).

CHEST: **tachycardia** (fast heartbeat).

EXTREMITIES: **rigidity, muscle; weakness, muscle**.

SLEEP: drowsiness.

GENERALITIES: **blood pressure, increased; pain at injection site** (following intramuscular administration); **rigidity, muscle; tachycardia** (fast heartbeat); **weakness, muscle**.

Pramipexole (Systemic)

Commercial name(s): *Mirapex*.

Category: Antidyskinetic (dopamine agonist).

Conventional indications: Parkinson's disease, idiopathic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **hallucinations** (seeing, hearing, or feeling things that are not there); *akathisia* (restlessness or need to keep moving); *amnesia* (memory loss); *confusion*; *paranoid reaction* (fearfulness, suspiciousness, or other mental changes); *delusions* (mood or mental changes); *thinking, abnormal*.

VERTIGO: **hypotension, orthostatic** (dizziness, lightheadedness, or fainting, especially when standing up); *dizziness*.

EYE: *retinal changes, pathologic* (degeneration and loss of photoreceptor cells) (in albino rats).

VISION: *diplopia* (double vision or other changes in vision); *eye or vision changes* (double vision or other changes in vision).

NOSE: *rhinitis* (runny nose).

MOUTH: **dryness**.

THROAT: *dysphagia* (difficulty in swallowing).

STOMACH: **nausea**; *anorexia* (loss of appetite).

ABDOMEN: *fibrosis, retroperitoneal*.

RECTUM: **constipation**.

BLADDER: *urination, frequent; incontinence, urinary* (loss of bladder control); *infection, urinary tract* (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate).

KIDNEYS: *infection, urinary tract* (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate).

GENITALIA MALE: *impotence* (decreased sexual drive or ability); *libido, decreased* (decreased sexual drive or ability).

GENITALIA FEMALE: *libido, decreased* (decreased sexual drive or ability).

RESPIRATION: *pneumonia* (cough; shortness of breath; troubled breathing; tightness in chest; wheezing); *dyspnea* (troubled breathing).

CHEST: *pneumonia* (cough; shortness of breath; troubled breathing; tightness in chest; wheezing); *effusion, pleural; infiltrates, pulmonary; pain, chest; thickening, pleural*.

EXTREMITIES: *akathisia* (restlessness or need to keep moving); *myasthenia* (muscle weakness); *pain, muscle or joint; edema, peripheral* (swelling of arms or legs); *rhabdomyolysis*.

SLEEP: **drowsiness; insomnia** (trouble in sleeping); *falling asleep without warning*.

DREAMS: *abnormal dreams*.

FEVER: *fever*.

PERSPIRATION: *sweating, increased*.

SKIN: *rash*.

GENERALITIES: **asthenia** (unusual tiredness or weakness); **hypotension, orthostatic** (dizziness, lightheadedness, or fainting, especially when standing up); edema; malaise (general feeling of discomfort or illness); myasthenia (muscle weakness); pain, muscle or joint; weight loss; rhabdomyolysis.

Secondary Actions or Rebound Effects: **dyskinesia, new or exacerbated preexisting** (twitching, twisting, or other unusual body movements); *symptom complex* (characterized by elevated temperature, muscular rigidity, altered consciousness, and autonomic instability, that resembles neuroleptic malignant syndrome and has no other obvious etiology has been reported in association with rapid dose reduction, withdrawal of, or changes in antiparkinsonian therapy).

Pramlintide (Systemic)

Commercial name(s): *Symlin*.

Category: Antidiabetic agent.

Conventional indications: Diabetes, type 1 (treatment adjunct); Diabetes, type 2 (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

THROAT: pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: **anorexia** (loss of appetite; weight loss); **nausea; pain, abdominal** (stomach pain); **vomiting**.

ABDOMEN: **pain, abdominal** (stomach pain).

RECTUM: diarrhea.

COUGH: coughing.

EXTREMITIES: **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving).

GENERALITIES: **allergic reaction** (cough; difficulty swallowing; dizziness; fast heartbeat; hives, itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **fatigue** (unusual tiredness or weakness); **injury, inflicted**; *hypoglycemia* (anxiety; blurred vision; chills; cold sweats; coma; confusion; cool pale skin; depression; dizziness; fast heartbeat; headache; increased hunger; nausea; nervousness; nightmares; seizures; shakiness; slurred speech; unusual tiredness or weakness); vasodilation.

DIAGNOSTIC TESTS: *hypoglycemia*.

Praziquantel (Systemic)

Commercial name(s): *Biltricide*.

Category: Anthelmintic (systemic).

Conventional indications: Clonorchiasis (treatment); Opisthorchiasis (treatment); Schistosomiasis (treatment); Cysticercosis (treatment); Neurocysticercosis (treatment); Diphyllbothriasis (treatment); Dipylidiasis (treatment); Hymenolepiasis (treatment); Metagonimiasis (treatment); Paragonimiasis (treatment); Taeniasis (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: **dizziness;** *vertigo* (dizziness or lightheadedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: **headache.**

STOMACH: **appetite, loss of; cramps; nausea; pain; vomiting.**

ABDOMEN: **cramps, abdominal; pain, abdominal.**

RECTUM: **diarrhea, bloody.**

CHEST: *arrhythmia* (dizziness; fainting; fast, slow, or irregular heartbeat); *bradycardia* (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); *block, atrioventricular* (chest pain; dizziness; fainting; pounding, slow heartbeat; troubled breathing; unusual tiredness or weakness); *ectopic rhythms* (dizziness; fainting; fast, slow, or irregular heartbeat); *fibrillation, ventricular* (fainting; fast, slow, or irregular heartbeat; shortness of breath; unusual tiredness or weakness).

SLEEP: **drowsiness;** *somnolence* (sleepiness or unusual drowsiness).

FEVER: **fever.**

PERSPIRATION: **sweating, increased.**

SKIN: *hives; itching; rash.*

GENERALITIES: **malaise;** *allergic reaction* (fast heartbeat; fever; hives; itching; irritation; hoarseness; joint pain, stiffness, or swelling; rash; redness of skin; shortness of breath; swelling of eyelids, face, lips, hands, or feet; tightness in chest; troubled breathing or swallowing; wheezing); *arrhythmia* (dizziness; fainting; fast, slow, or irregular heartbeat); *asthenia* (lack or loss of strength); *block, atrioventricular* (chest pain; dizziness; fainting; pounding, slow heartbeat; troubled breathing; unusual tiredness or weakness); *bradycardia* (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); *convulsion* (seizures); *ectopic rhythms* (dizziness; fainting; fast, slow, or irregular heartbeat); *fibrillation, ventricular* (fainting; fast, slow, or irregular heartbeat; shortness of breath; unusual tiredness or weakness); *polyserositis* (abdominal pain; chest pain; fever; shortness of breath).

DIAGNOSTIC TESTS: *block, atrioventricular; ectopic rhythms; fibrillation, ventricular.*

Prazosin (Systemic)

Commercial name(s): *Minipress*.

Category: Antihypertensive; Vasodilator, congestive heart failure; Antidote (to ergot alkaloid poisoning); Vasospastic therapy adjunct; Benign prostatic hyperplasia therapy agent.

Conventional indications: Hypertension (treatment); Congestive heart failure (treatment); Toxicity, ergot alkaloid (treatment); Pheochromocytoma (treatment); Raynaud's phenomenon (treatment); Benign prostatic hyperplasia (BPH) (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness*.

VERTIGO: *dizziness*; **hypotension, orthostatic** (dizziness or lightheadedness when getting up from a lying or sitting position; sudden fainting); *syncope*.

HEAD: *headache*.

MOUTH: *dryness*.

STOMACH: *nausea*.

BLADDER: *incontinence, urinary* (loss of bladder control); *frequency, urinary* (frequent urge to urinate).

GENITALIA MALE: *priapism* (painful, inappropriate erection of the penis, continuing).

RESPIRATION: *dyspnea* (shortness of breath).

CHEST: *palpitations* (pounding heartbeat); *angina* (chest pain) (rebound effect?).

EXTREMITIES: *edema* (swelling of feet or lower legs).

SLEEP: *drowsiness*.

GENERALITIES: *hypotension; vasodilation; hypotension, orthostatic* (dizziness or lightheadedness when getting up from a lying or sitting position; sudden fainting); **malaise** (lack of energy); *fatigue* (unusual tiredness or weakness); *palpitations* (pounding heartbeat).

Prazosin and Polythiazide (Systemic)

Commercial name(s): *Minizide*.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness*.

VERTIGO: *dizziness*; **hypotension, orthostatic** (dizziness or lightheadedness when getting up from a lying or sitting position; sudden fainting).

HEAD: *headache*.

MOUTH: *dryness*.

STOMACH: *anorexia* (loss of appetite); *upset stomach; nausea*.

ABDOMEN: *cholecystitis* (severe stomach pain with nausea and vomiting); *impairment, hepatic function* (yellow eyes or skin); *pancreatitis* (severe stomach pain with nausea and vomiting).

RECTUM: *diarrhea*.

BLADDER: *incontinence, urinary* (inability to control urination); *frequency, urinary* (frequent urge to urinate).

GENITALIA MALE: *sexual ability, decreased; priapism* (painful, inappropriate erection of the penis, continuing).

GENITALIA FEMALE: *sexual ability, decreased.*

RESPIRATION: *dyspnea* (shortness of breath).

CHEST: *palpitations* (pounding heartbeat); *angina* (chest pain) (rebound effect?).

EXTREMITIES: *edema* (swelling of feet or lower legs); *gout* (joint pain; lower back or side pain).

SLEEP: *drowsiness.*

SKIN: *photosensitivity* (increased sensitivity of skin to sunlight); *allergic reaction* (skin rash or hives).

GENERALITIES: *hypotension*; **alkalosis**, **hypochloremic**; **hyponatremia** (confusion; convulsions; decreased mentation; fatigue; irritability; muscle cramps); **hypokalemia** (dryness of mouth; increased thirst; irregular heartbeat; mood or mental changes; muscle cramps or pain; nausea or vomiting; unusual tiredness or weakness; weak pulse); **hypotension**, **orthostatic** (dizziness or lightheadedness when getting up from a lying or sitting position; sudden fainting); **malaise** (lack of energy); *fatigue* (tiredness or weakness); *palpitations* (pounding heartbeat); *agranulocytosis* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *gout* (joint pain; lower back or side pain); *hyperuricemia* (joint pain; lower back or side pain); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin).

DIAGNOSTIC TESTS: **alkalosis**, **hypochloremic**; **hyponatremia**; **hypokalemia**; *agranulocytosis*; *hyperuricemia*; *thrombocytopenia*.

Pregabalin (Systemic)

Commercial name(s): *Lyrica*

Category: Antineuralgic; Anticonvulsant

Conventional indications: Neuralgia, post-herpetic (treatment); Pain, peripheral neuropathy, diabetic (treatment); Seizures, partial (treatment adjunctive)

Primary Actions or Pathogenetic Symptoms

MIND: **amnesia** (loss of memory; problems with memory); **confusion** (mood or mental changes); **speech disorder** (difficulty in speaking); **thinking, abnormal** (confusion; delusions; dementia); *euphoria* (false or unusual sense of well-being); *nervousness*.

VERTIGO: **dizziness**; **gait, abnormal** (change in walking and balance, clumsiness, or unsteadiness); *vertigo* (burning, tingling, numbness or pain in the hands, arms, feet, or legs; sensation of pins and needles; stabbing pain).

HEAD: **headache.**

EYE: *eye disorder*; *nystagmus* (uncontrolled eye movements).

VISION: **blurred or blurry vision**; **diplopia** (double vision; seeing double); *abnormal vision* (changes in vision); *visual field defects* (blurred vision; decrease or change in vision).

FACE: *edema, facial* (swelling or puffiness of face).

MOUTH: **dryness**; **speech disorder** (difficulty in speaking).

STOMACH: **appetite, increased**; *vomiting*.

ABDOMEN: *flatulence* (bloated full feeling; excess air or gas in stomach or intestines; passing gas).

RECTUM: **constipation** (difficulty having a bowel movement [stool]).

BLADDER: *incontinence, urinary* (loss of bladder control).

RESPIRATION: *bronchitis* (cough producing mucus difficulty breathing shortness of breath tightness in chest wheezing); *dyspnea* (shortness of breath difficult or labored breathing tightness in chest wheezing).

CHEST: *bronchitis* (cough producing mucus difficulty breathing shortness of breath tightness in chest wheezing); *pain, chest*.

BACK: *pain, back*.

EXTREMITIES: **ataxia** (shakiness and unsteady walk; unsteadiness; trembling, or other problems with muscle control or coordination); **edema, peripheral** (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); **incoordination** (lack of coordination); **tremor** (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet); *myasthenia* (loss of strength or energy; muscle pain or weakness); *myoclonus* (muscle twitching or jerking rhythmic movement of muscles); *twitching*.

SLEEP: **somnolence** (sleepiness or unusual drowsiness).

GENERALITIES: **edema** (swelling); **edema, peripheral** (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **injury, accidental; weight gain; asthenia** (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *flu syndrome* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *hypoglycemia* (anxiety; blurred vision; chills; cold sweats; coma; confusion; cool pale skin; depression; dizziness; fast heartbeat; headache; increased hunger; nausea; nervousness; nightmares; seizures; shakiness; slurred speech; unusual tiredness or weakness); *myasthenia* (loss of strength or energy; muscle pain or weakness); *myoclonus* (muscle twitching or jerking rhythmic movement of muscles); *pain; twitching; allergic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

Secondary Actions or Rebound Effects: **neuropathy** (burning, tingling, numbness or pain in the hands, arms, feet, or legs; sensation of pins and needles; stabbing pain); *paresthesias* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings).

Primaquine (Systemic)

Commercial name(s): *Neo-Quipenyl; Primachin.*

Category: Antiprotozoal.

Conventional indications: Malaria (treatment); Pneumonia, *Pneumocystis carinii* (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: nausea; vomiting.

ABDOMEN: pain, abdominal.

GENERALITIES: anemia, hemolytic (in glucose-6-phosphate dehydrogenase (G6PD) deficient individuals) (dark urine; back, leg, or stomach pains; loss of appetite; pale skin; unusual tiredness or weakness; fever); methemoglobinemia (cyanosis - bluish fingernails, lips, or skin; dizziness or lightheadedness; difficulty breathing; unusual tiredness or weakness); *leukopenia* (sore throat and fever).

DIAGNOSTIC TESTS: anemia, hemolytic (in glucose-6-phosphate dehydrogenase (G6PD) deficient individuals); methemoglobinemia; *leukopenia*.

Primidone (Systemic)

Commercial name(s): *Apo-Primidone; Myidone; Mysoline; PMS Primidone; Sertan.*

Category: Anticonvulsant.

Conventional indications: Epilepsy (treatment); Essential tremor (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: mood or mental changes; confusion.

VERTIGO: dizziness.

EYE: *nystagmus* (continuous, uncontrolled back-and-forth and/or rolling eye movements) (rebound effects?).

VISION: *diplopia* (double vision).

STOMACH: anorexia (loss of appetite); nausea; vomiting.

GENITALIA MALE: impotence (decreased sexual ability).

RESPIRATION: *shortness of breath*; *troubled breathing*.

EXTREMITIES: **ataxia** (clumsiness or unsteadiness).

SLEEP: drowsiness.

SKIN: *rash*.

GENERALITIES: *anemia, megaloblastic* (unusual tiredness or weakness).

DIAGNOSTIC TESTS: *anemia, megaloblastic*.

Secondary Actions or Rebound Effects: paradoxical reaction (unusual excitement or restlessness).

Probenecid (Systemic)

Commercial name(s): *Benemid; Benuryl; Probalan.*

Category: Antigout agent; Antibiotic therapy adjunct; Antihyperuricemic.

Conventional indications: Gouty arthritis, chronic (treatment); Hyperuricemia (treatment); Antibiotic therapy, adjunct.

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: headache.

FACE: *flushing; redness.*

MOUTH: *sore gums.*

STOMACH: appetite, loss of; nausea, mild; vomiting, mild to severe.

ABDOMEN: *necrosis, hepatic* (yellow eyes or skin).

BLADDER: *urinate, frequent urge to.*

KIDNEYS: *calculi, renal, urate* (lower back and/or side pain; painful urination, with or without blood in urine); *colic, renal* (pain, severe and/or sharp, in lower back and/or side); *nephropathy, urate* (symptoms of renal impairment, e.g., increased blood pressure; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sudden decrease in amount of urine; swelling of face, fingers, feet, and/or lower legs; unusual tiredness or weakness; weight gain); *nephrotic syndrome* (cloudy urine; swelling of face).

RESPIRATION: failure, respiratory.

CHEST: *pain in ribs.*

BACK: *pain in back and/or ribs.*

FEVER: *fever, allergic.*

SKIN: *dermatitis, allergic* (skin rash, hives, and/or itching).

GENERALITIES: *anaphylaxis* (changes in facial skin color; skin rash, hives, and/or itching; fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing); *anemia* (unusual tiredness and/or weakness if severe); *anemia, aplastic* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sores, ulcers, or white spots on lips or in mouth; swollen and/or painful glands; unusual bleeding or bruising; unusual tiredness or weakness); *anemia, hemolytic* (troubled breathing, exertional; unusual tiredness or weakness); *leukopenia* (rarely, fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *nephrotic syndrome* (cloudy urine; swelling of face); stimulation, central nervous system (CNS); seizures, clonic-tonic.

DIAGNOSTIC TESTS: *hypouricemia; calculi, renal, urate; anemia; anemia, aplastic; anemia, hemolytic; leukopenia.*

Secondary Actions or Rebound Effects: arthritis, gouty, acute attack (joint pain; redness; swelling).

Probenecid and Colchicine (Systemic)

Commercial name(s): *Col-Probenecid; ColBenemid; Proben-C.*

Category: Antigout agent.

Conventional indications: Gouty arthritis, chronic (treatment).

Primary Actions or Pathogenetic Symptoms

Probenecid - See Probenecid (Systemic).

Colchicine - See Colchicine (Systemic).

Probucol (Systemic)

Commercial name(s): *Lorelco*.

Category: Antihyperlipidemic.

Conventional indications: Hyperlipidemia (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: *headache*.

FACE: *edema, angioneurotic* (swellings on face).

MOUTH: *edema, angioneurotic* (swellings in mouth).

STOMACH: **irritation, gastrointestinal** (bloating; diarrhea; nausea and vomiting; stomach pain).

ABDOMEN: **irritation, gastrointestinal** (bloating; diarrhea; nausea and vomiting; stomach pain).

CHEST: **arrhythmias, ventricular, and QT interval prolongation** (dizziness or fainting; pounding heartbeat; fast or irregular heartbeat).

EXTREMITIES: *edema, angioneurotic* (swellings on hands, or feet).

GENERALITIES: **arrhythmias, ventricular, and QT interval prolongation** (dizziness or fainting; pounding heartbeat; fast or irregular heartbeat); **eosinophilia**; *paresthesia* (numbness or tingling of fingers, toes, or face); *anemia* (unusual tiredness or weakness); *thrombocytopenia* (unusual bleeding or bruising).

DIAGNOSTIC TESTS: *hypolipidemia*; **QT interval prolongation and ventricular arrhythmias**; *anemia*; *thrombocytopenia*.

Procainamide (Systemic)

Commercial name(s): *Procan SR*; *Promine*; *Pronestyl*; *Pronestyl-SR*.

Category: Antiarrhythmic.

Conventional indications: Arrhythmias, ventricular (treatment); Arrhythmias, supraventricular (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion*; *depression*, *mental*; *hallucinations*.

VERTIGO: *dizziness*; *lightheadedness*; fainting.

STOMACH: **appetite, loss of**; nausea; vomiting.

RECTUM: **diarrhea**.

BLADDER: urination, decrease in.

CHEST: *tachycardia*; heartbeat, fast or irregular.

SLEEP: drowsiness.

GENERALITIES: *allergic reaction* (fever and chills; joint pain or swelling; pains with breathing; skin rash or itching); *lupus erythematosus-like syndrome, systemic (SLE)* (fever and chills; joint pain or swelling; pains with breathing; skin rash or itching); *anemia, Coombs' positive hemolytic* (unusual tiredness or weakness); *death; depression, bone marrow; hypotension* (transient but sometimes severe reduction in blood pressure); *leukopenia (neutropenia) and possible agranulocytosis, which may be fatal* (fever, chills, or sore mouth, gums, or throat); *tachycardia; thrombocytopenia* (unusual bleeding or bruising); heartbeat, fast or irregular.

DIAGNOSTIC TESTS: *anemia, Coombs' positive hemolytic; depression, bone marrow; leukopenia (neutropenia) and possible agranulocytosis, which may be fatal; thrombocytopenia.*

Secondary Actions or Rebound Effects: *asystole, ventricular; fibrillation, ventricular.*

Procarbazine (Systemic)

Commercial name(s): *Matulane; Natulan.*

Category: Antineoplastic.

Conventional indications: Lymphomas, Hodgkin's (treatment); Lymphomas, non-Hodgkin's (treatment); Tumors, brain, primary (treatment); Multiple myeloma (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; hallucinations; nervousness; depression, mental.*

VERTIGO: *hypotension, orthostatic* (dizziness or lightheadedness when getting up from a lying or sitting position; fainting).

HEAD: *hair, loss of; headache.*

FACE: *feeling of warmth and redness.*

MOUTH: *stomatitis* (sores in mouth and on lips); *dryness.*

THROAT: *swallowing, difficulty in.*

STOMACH: *nausea; toxicity, gastrointestinal* (diarrhea); *vomiting; appetite, loss of.*

ABDOMEN: *hepatotoxicity* (yellow eyes or skin); *toxicity, gastrointestinal* (diarrhea).

RECTUM: *diarrhea; constipation.*

GENITALIA FEMALE: *menstrual periods, missing.*

CHEST: *pneumonitis* (cough; shortness of breath; thickening of bronchial secretions); *toxicity, pulmonary.*

EXTREMITIES: *neuropathy, peripheral* (tingling or numbness of fingers or toes; unsteadiness or awkwardness); *pain, muscle or joint; twitching, muscle.*

SLEEP: *drowsiness; trouble in sleeping.*

DREAMS: *nightmares.*

SKIN: *darkening of skin; hair, loss of.*

GENERALITIES: *anemia; anemia, hemolytic* (continuing tiredness or weakness); *convulsions; immunosuppression* (fever or chills; cough or hoarseness; lower back or side

pain; painful or difficult urination); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **neuropathy, peripheral** (tingling or numbness of fingers or toes; unsteadiness or awkwardness); **pain, muscle or joint; stimulation, CNS, excessive** (confusion; convulsions; hallucinations; drowsiness; muscle or joint pain; muscle twitching; nervousness; nightmares; trouble in sleeping); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); **tiredness or weakness, unusual; twitching, muscle; hair, loss of; hypotension, orthostatic** (dizziness or lightheadedness when getting up from a lying or sitting position; fainting); **allergic reaction** (skin rash, hives or itching; wheezing); **hypertensive crisis** (severe chest pain; enlarged pupils; fast or slow heartbeat; severe headache; increased sensitivity of eyes to light; increased sweating, possibly with fever or cold, clammy skin; stiff or sore neck).

DIAGNOSTIC TESTS: anemia; anemia, hemolytic; leukopenia; immunosuppression; thrombocytopenia.

Progestins (Systemic)

Commercial name(s): *Alti-MPA; Amen; Apo-Megestrol; Aygestin; Colprone; Crinone; Curretab; Cycrin; Depo-Provera; Depo-Provera Contraceptive Injection; Gen-Medroxy; Gesterol 50; Gesterol LA 250; Hy/Gestrone; Hylutin; Megace; Megace OS; Micronor; NORPLANT System; Nor-QD; Norlutate; Novo-Medrone; Ovrette; PMS-Progesterone; Plan B; Pro-Span; Prochieve; Prodrox; Prometrium; Provera; Provera Pak; depo-subQ provera 104.*

Category: Progestational agent [Hydroxyprogesterone; Medrogestone; Medroxyprogesterone (oral); Norethindrone; Norgestrel; Progesterone]; Antianorectic [Megestrol]; Anticachectic [Megestrol]; Antineoplastic [Medroxyprogesterone (parenteral); Megestrol]; Contraceptive (systemic) [Levonorgestrel; Medroxyprogesterone (parenteral); Norethindrone (base); Norgestrel]; Diagnostic aid (estrogen production) [Hydroxyprogesterone; Medroxyprogesterone (oral); Progesterone (parenteral)]; Infertility therapy adjunct [Progesterone (vaginal)]; Ovarian hormone therapy agent adjunct [Medroxyprogesterone (oral); Progesterone (oral)].

Conventional indications: Amenorrhea, secondary (treatment), Dysfunctional uterine bleeding (treatment), or Menses, induction of (treatment) [Hydroxyprogesterone, medrogestone, oral medroxyprogesterone, norethindrone acetate, and parenteral progesterone]; Anorexia (treatment), Cachexia (treatment), or Weight loss, significant (treatment) [Megestrol suspension]; Assisted reproductive technologies, in females or Corpus luteum insufficiency (treatment) [Progesterone vaginal gel]; Carcinoma, breast (treatment) [Megestrol and oral and parenteral medroxyprogesterone]; Carcinoma, endometrial (treatment) [Oral or parenteral medroxyprogesterone, and megestrol]; Carcinoma, prostate (treatment) [Megestrol]; Carcinoma, renal (treatment) [Parenteral medroxyprogesterone]; Contraception, emergency postcoital (prophylaxis) [Levonorgestrel, oral]; Endometriosis (treatment) [Norethindrone acetate, parenteral medroxyprogesterone, and oral medroxyprogesterone]; Estrogen production, endogenous (diagnosis)

[Hydroxyprogesterone, oral medroxyprogesterone, and parenteral progesterone]; Hot flashes [Megesterol acetate and medroxyprogesterone acetate injection]; Hyperplasia, endometrial (treatment) or Hyperplasia, endometrial, estrogen-induced (prophylaxis) [Megestrol and oral medroxyprogesterone]; Pain, endometriosis-associated (treatment) [Subcutaneous medroxyprogesterone]; Pregnancy, prevention of [Levonorgestrel, parenteral medroxyprogesterone, norethindrone (base), and norgestrel]; Polycystic ovary syndrome (treatment) [Medroxyprogesterone]; Puberty, precocious (treatment) [Parenteral medroxyprogesterone].

Primary Actions or Pathogenetic Symptoms

MIND: mood changes; nervousness; depression, mental.

VERTIGO: dizziness.

HEAD: headache, mild; hair, scalp, loss or gain of; migraine, sudden onset of [parenteral medroxyprogesterone].

EYE: proptosis, sudden onset of [parenteral medroxyprogesterone].

VISION: diplopia, sudden onset of [parenteral medroxyprogesterone]; loss of vision [parenteral medroxyprogesterone].

FACE: hair, facial, loss or gain of.

STOMACH: excess weight (obesity), appetite increased [Megestrol]; **nausea; vomiting.**

ABDOMEN: **cramping, abdominal; pain, abdominal.**

RECTUM: **diarrhea.**

GENITALIA MALE: libido decrease (loss of sexual desire).

GENITALIA FEMALE: contraceptive (inhibition of the ovulation) [Levonorgestrel; Medroxyprogesterone (parenteral); Norethindrone (base); Norgestrel]; fertility adjunct [Progesterone (vaginal)] (similitude therapeutic principle?); **amenorrhea** (stopping of menstrual periods); **bleeding, menstrual, breakthrough** (medium to heavy uterine bleeding between regular monthly periods); **cyst formation, ovarian** (abdominal pain); **enlargement, ovarian** (abdominal pain); **menorrhagia** (increased amount of menstrual bleeding occurring at regular monthly periods); **metromenorrhagia** (medium to heavy uterine bleeding between regular monthly periods); **spotting** (light uterine bleeding between regular monthly periods); libido decrease (loss of sexual desire).

CHEST: galactorrhea (unexpected or increased flow of breast milk); pain, breast; tenderness, breast.

EXTREMITIES: **edema** (bloating or swelling of ankles or feet); bone mineral density, loss of; fracture, osteoporotic (pain or swelling in arms or legs without any injury); osteoporosis (pain in back, ribs, arms, or legs; decrease in height).

SLEEP: **drowsiness; insomnia** (trouble in sleeping).

SKIN: acne; melasma (brown spots on exposed skin, which may persist after treatment stops); hair, body, loss or gain of; rash.

GENERALITIES: fertility adjunct [Progesterone (vaginal)] (similitude therapeutic principle?); **fatigue; hyperglycemia** (dry mouth; frequent urination; loss of appetite; unusual thirst); **pain, redness, or skin irritation at the site of injection or implantation** (including local skin color change and residual lump); **tiredness or weakness, unusual; weight gain, unusual or rapid; hair, body, loss or gain of; hot flashes; anaphylaxis/anaphylactoid reaction** (cough; difficulty swallowing; dizziness; fast

heartbeat; hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *bone mineral density, loss of*; *Cushing's syndrome* (backache; filling or rounding out of the face; irritability; menstrual irregularities; mental depression; unusual decrease in sexual desire or ability in men; unusual tiredness or weakness); *fracture, osteoporotic* (pain or swelling in arms or legs without any injury); *hypotension* (dizziness; nausea or vomiting; unusual tiredness or weakness); *osteoporosis* (pain in back, ribs, arms, or legs; decrease in height); *suppression or insufficiency, adrenal* (dizziness; nausea or vomiting; unusual tiredness or weakness); *thromboembolism* (headache or migraine; loss of or change in speech, coordination, or vision; pain or numbness in chest, arm, or leg; shortness of breath, unexplained); *thrombus formation* (headache or migraine; loss of or change in speech, coordination, or vision; pain or numbness in chest, arm, or leg; shortness of breath, unexplained).

DIAGNOSTIC TESTS: hyperglycemia.

Secondary Actions or Rebound Effects: *fertility adjunct* [Progesterone (vaginal)]; *fertility in females, delayed return of* (stopping of menstrual periods; unusual menstrual bleeding, continuing).

Proguanil (Systemic)

Commercial name(s): *Paludrine*.

Category: Antimalarial.

Conventional indications: Malaria (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: headache; *alopecia, reversible* (temporary hair loss).

MOUTH: stomatitis (mouth sores or ulcers).

STOMACH: anorexia (lack of appetite); **intolerance, gastric, mild** (diarrhea; nausea; vomiting); discomfort, epigastric (abdominal or stomach pain); vomiting.

ABDOMEN: discomfort, epigastric (abdominal or stomach pain).

KIDNEYS: irritation, renal (pain or burning while urinating).

URINE: hematuria (blood in urine; lower back pain; pain or burning while urinating).

SKIN: *alopecia, reversible* (temporary hair loss); *hypersensitivity* (skin rash or itching).

GENERALITIES: *alopecia, reversible* (temporary hair loss).

DIAGNOSTIC TESTS: hematuria.

Propafenone (Systemic)

Commercial name(s): *Rythmol*; *Rythmol SR*.

Category: Antiarrhythmic.

Conventional indications: Arrhythmias, ventricular (treatment); Arrhythmias, supraventricular (treatment); Arrhythmias, supraventricular, other (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

VISION: *blurred vision.*

MOUTH: *taste disturbance* (change in taste; bitter or metallic taste); *dryness.*

STOMACH: *nausea; vomiting.*

RECTUM: *constipation; diarrhea.*

CHEST: *angina* (chest pain); *bradycardia* (slow heartbeat); *block, bundle branch; block, atrioventricular, first or second degree; conduction delay, intraventricular; congestive heart failure, new or exacerbated* (shortness of breath, swelling of feet or lower legs, weight gain); *fibrillation, atrial; flutter, atrial; torsades de pointes, potentially fatal* (fast or irregular heartbeat, dizziness, and/or fainting) (rebound effect?); *arrest, sinus; pause, sinus;* conduction disturbances, intra-atrial and intraventricular.

EXTREMITIES: *pain, joint; shaking; trembling.*

SLEEP: *somnolence (sleepiness).*

SKIN: *rash.*

GENERALITIES: *block, bundle branch; block, atrioventricular, first or second degree; bradycardia* (slow heartbeat); *conduction delay, intraventricular; congestive heart failure, new or exacerbated* (shortness of breath, swelling of feet or lower legs, weight gain); *fibrillation, atrial; flutter, atrial; torsades de pointes, potentially fatal* (fast or irregular heartbeat, dizziness, and/or fainting) (rebound effect?); *tiredness or weakness, unusual;* *agranulocytosis* (chills, fever, and weakness); *hypotension* (dizziness or lightheadedness, or fainting); *shaking; trembling;* conduction disturbances, intra-atrial and intraventricular; seizures.

DIAGNOSTIC TESTS: *agranulocytosis; block, bundle branch; block, atrioventricular, first or second degree; conduction delay, intraventricular; fibrillation, atrial; flutter, atrial; torsades de pointes, potentially fatal; arrest, sinus; pause, sinus;* conduction disturbances, intra-atrial and intraventricular.

Secondary Actions or Rebound Effects: *arrhythmias, ventricular, new or exacerbated* (increase in frequency of premature ventricular contractions, or a worsening or new appearance of ventricular tachycardia or ventricular fibrillation).

Propofol (Systemic)

Commercial name(s): *Diprivan.*

Category: Anesthetic, general; Anesthesia adjunct; Sedative-hypnotic.

Conventional indications: Anesthesia, general; Anesthesia, general, adjunct; Sedation.

Primary Actions or Pathogenetic Symptoms

MIND: *peacefulness* (serenity, calm).

VERTIGO: *dizziness.*

HEAD: *headache.*

STOMACH: *nausea; vomiting; hiccups.*

ABDOMEN: *cramping, abdominal; pancreatitis* (abdominal pain).

RESPIRATION: *apnea; depression, respiratory.*

COUGH: *cough.*

CHEST: *bradycardia.*

EXTREMITIES: *movements, muscle, involuntary, temporary; myoclonia, perioperative, rarely including opisthotonus.*

FEVER: *fever.*

SKIN: *flushing.*

GENERALITIES: *anesthesia* (pain absence); *bradycardia; burning at injection site; hypotension; movements, muscle, involuntary, temporary; pain at injection site; stinging at injection site; coldness at injection site; flushing; hypertension; myoclonia, perioperative, rarely including opisthotonus; numbness at injection site; tingling at injection site; clinical syndrome* (bronchospasm, erythema, and hypotension, and sequelae including anoxic brain damage and death); *infections, postoperative, and subsequent deaths; phlebitis, post-injection; thrombosis, post-injection; depression, cardiovascular.*

Protamine (Systemic)

Other commonly used names: Protamine sulfate.

Category: Antidote (to heparin).

Conventional indications: Toxicity, heparin (treatment); Toxicity, enoxaparin (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headaches.*

NOSE: *nosebleeds, unexplained (rebound effect?).*

MOUTH: *bleeding from gums when brushing teeth (rebound effect?).*

STOMACH: *nausea; vomiting; vomiting of blood or material that looks like coffee grounds (rebound effect?).*

ABDOMEN: *pain, abdominal; swelling, abdominal.*

RECTUM: *constipation caused by hemorrhage-induced paralytic ileus or intestinal obstruction (rebound effect?).*

STOOL: *black, tarry stools; bloody stools (rebound effect?).*

URINE: *blood in urine (rebound effect?).*

GENITALIA FEMALE: *bleeding, menstrual, unusually heavy or unexpected (rebound effect?).*

RESPIRATION: *dyspnea.*

COUGH: *coughing up blood (rebound effect?).*

CHEST: *bradycardia; edema, noncardiogenic pulmonary; hypertension, pulmonary and/or systemic.*

BACK: *pain, back.*

EXTREMITIES: *pain, joint, severe or continuing; stiffness, joint, severe or continuing; swelling, joint, severe or continuing.*

SKIN: *flushing*; bleeding, heavy from cuts or wounds (rebound effect?); oozing from cuts or wounds; purplish areas on skin, unexplained.

GENERALITIES: **blood pressure, decrease in, sudden** (may reach hypotensive levels); **bradycardia; collapse, cardiovascular; shock, cardiovascular; anaphylactic or anaphylactoid reaction, possibly fatal; feeling of warmth; feeling of weakness; flushing; hypertension, pulmonary and/or systemic**; bruising, unexplained; oozing from cuts or wounds; pain, joint, severe or continuing; stiffness, joint, severe or continuing; swelling, joint, severe or continuing.

DIAGNOSTIC TESTS: blood in urine (rebound effect?).

Secondary Actions or Rebound Effects: *bleeding*; anticoagulation, excessive (bleeding from gums when brushing teeth; heavy bleeding or oozing from cuts or wounds; unexplained bruising or purplish areas on skin; unexplained nosebleeds; unusually heavy or unexpected menstrual bleeding); bleeding, internal (abdominal pain or swelling; back pain or backaches; blood in urine; bloody or black, tarry stools; constipation caused by hemorrhage-induced paralytic ileus or intestinal obstruction; coughing up blood; dizziness; headaches; severe or continuing joint pain, stiffness, or swelling; vomiting of blood or material that looks like coffee grounds); bleeding, heavy from cuts or wounds.

Protirelin (Systemic)

Commercial name(s): *Relefact TRH*.

Category: Diagnostic aid (hypothalamic-pituitary-thyroid axis function).

Conventional indications: Thyroid function studies; Pituitary function studies.

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety*.

VERTIGO: lightheadedness.

HEAD: headache, sometimes severe.

VISION: *amaurosis, in patients with pituitary tumors* (temporary loss of vision).

MOUTH: dryness; taste, unpleasant.

THROAT: *tightness in throat*.

STOMACH: nausea; pain.

BLADDER: urinate, frequent urge to.

CHEST: *pressure in the chest*.

SLEEP: *drowsiness*.

PERSPIRATION: *sweating*.

SKIN: flushing; redness.

GENERALITIES: **flushing; tingling; hypertension; hypotension, severe** (fainting; syncope).

Prussian Blue (Oral-Local)

Commercial name(s): *Antidotum Thallii-Heyl; Radiogardase-Cs*.

Category: Chelating agent.

Conventional indications: Toxicity, thallium (treatment); Toxicity, radiocesium (treatment).

Primary Actions or Pathogenetic Symptoms

RECTUM: constipation.

STOOL: dark feces, unusually.

Pseudoephedrine (Systemic)

Commercial name(s): *Balminil Decongestant Syrup; Benylin Decongestant; Cenafed; Chlor-Trimeton Non-Drowsy Decongestant 4 Hour; Decofed; Dimetapp Decongestant; Dimetapp Decongestant Pediatric Drops; Drixoral N.D.; Drixoral Nasal Decongestant; Efidac/24; Eltor 120; Genaphed; Maxenal; Myfedrine; PediaCare Infants' Oral Decongestant Drops; Pseudo; Pseudo 60's; Robidrine; Sudafed; Sudafed 12 Hour; Sudafed Children's Nasal Decongestant Liquid Medication; Sudafed Decongestant; Sudafed Decongestant 12 Hour; Sudafed Decongestant Extra Strength; Triaminic AM Decongestant Formula; Triaminic Infant Oral Decongestant Drops.*

Category: Decongestant, nasal (systemic).

Conventional indications: Congestion, nasal (treatment); Congestion, sinus (treatment); Congestion, eustachian tube (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: nervousness; restlessness; hallucinations; excitement, unusual.

VERTIGO: dizziness; lightheadedness.

HEAD: headache.

STOMACH: nausea; vomiting.

BLADDER: urination, difficult or painful.

RESPIRATION: shortness of breath; troubled breathing; fast breathing.

CHEST: heartbeat, fast or pounding; heartbeat, irregular or slow.

SLEEP: trouble in sleeping.

PERSPIRATION: sweating, increased.

SKIN: paleness, unusual.

GENERALITIES: heartbeat, fast or pounding; paleness, unusual; trembling; weakness; convulsions; heartbeat, irregular or slow; blood pressure, increase in.

Pyrantel (Oral-Local)

Commercial name(s): *Combantrin; Pin-X; Reese's Pinworm Caplets; Reese's Pinworm Medicin.*

Category: Anthelmintic (oral-local).

Conventional indications: Ascariasis (treatment); Enterobiasis (treatment); Helminth infections, multiple (treatment); Hookworm infection (treatment); Trichostrongyliasis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *irritability*; prostration (extreme tiredness or weakness).

VERTIGO: *dizziness*.

HEAD: *headache*.

STOMACH: *disturbances, gastrointestinal* (abdominal or stomach cramps or pain; diarrhea; loss of appetite; nausea or vomiting).

ABDOMEN: *disturbances, gastrointestinal* (abdominal or stomach cramps or pain; diarrhea; loss of appetite; nausea or vomiting).

RESPIRATION: asphyxia (difficulty in breathing; loss of consciousness).

EXTREMITIES: spasm, twitches, and weakness, muscle.

SLEEP: *drowsiness; trouble in sleeping*.

SKIN: *hypersensitivity* (skin rash).

GENERALITIES: autonomic dysfunction (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position sudden; sweating; unusual tiredness or weakness; irregular heartbeat); prostration (extreme tiredness or weakness); spasm, twitches, and weakness, muscle.

Pyrazinamide (Systemic)

Commercial name(s): *Tebrazid; pms-Pyrazinamide*.

Category: Antibacterial (antimycobacterial).

Conventional indications: Tuberculosis (treatment).

Primary Actions or Pathogenetic Symptoms

ABDOMEN: *hepatotoxicity* (loss of appetite; unusual tiredness or weakness; yellow eyes or skin).

EXTREMITIES: *arthralgia* (pain in the large and small joints); *arthritis, gouty* (pain and swelling of joints, especially big toe, ankle, and knee; tense, hot skin over affected joints)

SKIN: *itching; rash*.

GENERALITIES: *arthralgia* (pain in the large and small joints); *arthritis, gouty* (pain and swelling of joints, especially big toe, ankle, and knee; tense, hot skin over affected joints).

Pyrethrins and Piperonyl Butoxide (Topical)

Commercial name(s): *A-200 Gel Concentrate; A-200 Shampoo Concentrate; Barc; Blue; Licetrol; Pronto Lice Killing Shampoo Kit; Pyrinyl; R & C; Rid; Tisit; Tisit Blue; Tisit Shampoo; Triple X*.

Category: Pediculicide.

Conventional indications: Pediculosis corporis (treatment); Pediculosis capitis (treatment); Pediculosis pubis (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: *nausea* [injected or inhaled pyrethrins; large amounts of Piperonyl butoxide ingested orally]; *vomiting* [injected or inhaled pyrethrins; large amounts of Piperonyl butoxide ingested orally].

ABDOMEN: *enteritis, hemorrhagic* [large amounts of Piperonyl butoxide ingested orally].

RECTUM: *diarrhea* [large amounts of Piperonyl butoxide ingested orally].

EXTREMITIES: *paralysis, muscle* [injected or inhaled Pyrethrins].

SKIN: *infection, skin; irritation, skin, not present before therapy.*

GENERALITIES: *allergic reaction* (skin rash; sudden attacks of sneezing; stuffy or runny nose; wheezing or difficulty in breathing); *death* [injected or inhaled Pyrethrins]; *depression, central nervous system (CNS)* [large amounts of Piperonyl butoxide ingested orally]; *paralysis, muscle* [injected or inhaled Pyrethrins].

Pyridostigmine for Military Combat Medical Use (Systemic)

Commercial name(s): *Pyridostigmine Bromide.*

Category: Cholinergic (anticholinesterase inhibitor).

Conventional indications: Neuromuscular blockade (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation* (anxiety, nervousness, restlessness, irritability, dry mouth, shortness of breath, hyperventilation, trouble sleeping, irregular heartbeats, shaking); *concentrating, difficulty in; confusion* (mood or mental changes); *confusion, post syncopal* (mood or mental changes); *consciousness, loss of; delusions, paranoid* (mental problems); *depressed mood* (discouragement, feeling sad or empty, irritability, lack of appetite, loss of interest or pleasure, tiredness, trouble concentrating, trouble sleeping); *hallucinations, visual* (seeing things that are not there); *lethargy* (unusual drowsiness, dullness, tiredness, weakness or feeling of sluggishness); *restlessness.*

VERTIGO: *dizziness; vertigo* (dizziness or lightheadedness, feeling of constant movement of self or surroundings, sensation of spinning); *weakness, syncopal.*

HEAD: *alopecia* (hair loss, thinning of hair); *headache.*

EYE: *pain, eye; pupils, small; watering.*

VISION: *amblyopia* (blurred vision, change in vision, impaired vision); *change in vision; blurred vision.*

NOSE: *epistaxis* (bloody nose).

MOUTH: *numbness of the tongue; paralysis, muscle, tongue; watering; weakness, muscle, tongue.*

EXTERNAL THROAT: *pain, neck; paralysis, muscle, neck; weakness, muscle, neck.*

STOMACH: **pain, abdominal** (stomach pain); *borborygmi* (excess air or gas in stomach or intestines); *nausea; vomiting; cramps; pain.*

ABDOMEN: **pain, abdominal** (stomach pain); *bloating* (swelling); *borborygmi* (excess air or gas in stomach or intestines); *flatulence* (bloated full feeling, excess air or gas in stomach or intestines, passing gas).

RECTUM: **diarrhea; incontinence, fecal** (loss of bowel control).

BLADDER: *frequency, urinary* (increased need to urinate, passing urine more often); *incontinence, urinary* (loss of bladder control).

GENITALIA FEMALE: *dysmenorrhea* (pain, cramps, heavy bleeding).

RESPIRATION: *asthma, exacerbation of* (cough, difficulty breathing, noisy breathing, shortness of breath, tightness in chest, wheezing); *bronchitis, acute, exacerbation of* (cough producing mucus, difficulty breathing, shortness of breath, tightness in chest, wheezing); *difficulty in breathing; paralysis, respiratory* (inability to breath without assistance); shortness of breath; wheezing.

CHEST: *arrest, cardiac* (stopping of heart, no blood pressure or pulse, unconsciousness); *asthma, exacerbation of* (cough, difficulty breathing, noisy breathing, shortness of breath, tightness in chest, wheezing); *bronchitis, acute, exacerbation of* (cough producing mucus, difficulty breathing, shortness of breath, tightness in chest, wheezing); *edema, pulmonary* (chest pain; difficult, fast, noisy breathing, sometimes with wheezing; blue lips and fingernails; pale skin; increased sweating; coughing that sometimes produces a pink frothy sputum; shortness of breath; swelling in legs and ankles); *heart rate, decreased; stiffness of the upper torso and arms; tightness, chest.*

EXTREMITIES: *myalgia* (joint pain, swollen joints, muscle aching or cramping, muscle pains or stiffness, difficulty in moving); *twitch; hypertonia* (excessive muscle tone, muscle tension or tightness, muscle stiffness); *stiffness of the arms and upper torso; tingling of extremities; cramps, muscle.*

SLEEP: *disturbed sleep* (trouble in sleeping); *drowsiness* (sleepiness).

PERSPIRATION: *sweating, increased.*

SKIN: *dryness; alopecia* (hair loss, thinning of hair); *pallor, skin, post syncopal* (paleness of skin); *rash.*

GENERALITIES: *hypesthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *myalgia* (joint pain, swollen joints, muscle aching or cramping, muscle pains or stiffness, difficulty in moving); *alopecia* (hair loss, thinning of hair); *blood pressure, elevated; electrolyte abnormalities* (confusion, irregular heartbeat, muscle cramps or pain, numbness, tingling, pain, or weakness in hands or feet, seizures, trembling, unusual tiredness or weakness, weakness and heaviness of legs); *heart rate, decreased; hypertonia* (excessive muscle tone, muscle tension or tightness, muscle stiffness); *seizures; sensation, warm; weakness, syncopal; cholinergic crisis* (increasing muscle weakness); cramps, muscle; muscarinic effects (blurred vision; diarrhea; frequent urge to urinate; nausea; shortness of breath; slow heartbeat; small pupils; stomach cramps or pain; sweating; tightness in chest; unusual tiredness or weakness; vomiting; watering of eyes or mouth; wheezing).

DIAGNOSTIC TESTS: *electrolyte abnormalities.*

Secondary Actions or Rebound Effects: nicotinic effects (increasing muscle weakness or paralysis, especially in the arms, neck, shoulders, and tongue; muscle cramps or twitching); paralysis, muscle (especially in the arms, neck, shoulders, and tongue); twitching, muscle; weakness, muscle (especially in the arms, neck, shoulders, and tongue).

Pyridoxine (Systemic)

Commercial name(s): *Beesix; Doxine; Nestrex; Pyri; Rodex; Vitabee 6.*

Category: Nutritional supplement (vitamin); Antidote (to cycloserine poisoning; to isoniazid poisoning).

Conventional indications: Pyridoxine deficiency (prophylaxis and treatment); Cycloserine toxicity (treatment); Isoniazid toxicity (treatment).

Primary Actions or Pathogenetic Symptoms

EXTREMITIES: *neuropathy, sensory, severe* (progressing from unstable gait and numb feet to numbness and clumsiness of hands).

GENERALITIES: *dependency syndrome; neuropathy, sensory, severe* (progressing from unstable gait and numb feet to numbness and clumsiness of hands).

Pyrimethamine (Systemic)

Commercial name(s): *Daraprim.*

Category: Antiprotozoal.

Conventional indications: Malaria (treatment); Malaria, acute (treatment); Toxoplasmosis (treatment); Malaria (chemoprophylaxis); Isosporiasis (prophylaxis and treatment); Pneumonia, *Pneumocystis carinii* (treatment).

Primary Actions or Pathogenetic Symptoms

MOUTH: *glossitis, atrophic* (irritation or soreness of tongue).

STOMACH: *anorexia* (loss of appetite); *nausea; vomiting*; toxicity, gastrointestinal (abdominal pain; severe and repeated vomiting, possibly including hematemesis).

ABDOMEN: toxicity, gastrointestinal (abdominal pain; severe and repeated vomiting, possibly including hematemesis).

RECTUM: *diarrhea.*

URINE: *hematuria* (blood in urine).

RESPIRATION: depression, respiratory.

CHEST: *arrhythmia, cardiac* (chest pain or discomfort, dizziness, fainting, fast, slow, or irregular heartbeat, lightheadedness, pounding or rapid pulse); *eosinophilia, pulmonary* (chest pain; dry cough; fever; general feeling of tiredness or weakness; rapid breathing; shortness of breath; skin rash; wheezing).

SKIN: *erythema multiforme* (bleeding or crusting sores on lips; chest pain; fever with or without chills; muscle cramps or pain; redness, blistering, peeling, or loosening of skin; sores, ulcers, and/or white spots in mouth; sore throat; unusual tiredness or weakness); *hypersensitivity* (skin rash); *necrolysis, toxic epidermal* (blistering, peeling, loosening of skin, chills, cough, diarrhea, itching, joint or muscle pain, red irritated eyes, red skin lesions, often with a purple center, sore throat, sores, ulcers, or white spots in mouth or on lips, unusual tiredness or weakness).

GENERALITIES: *agranulocytosis* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); *leukopenia* (black, tarry stools; blood in

urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); *thrombocytopenia* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); *anaphylaxis* (cough, difficulty swallowing, dizziness, fast heartbeat, hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue, shortness of breath, skin rash, tightness in chest, unusual tiredness or weakness, wheezing); *anemia, megaloblastic* (fainting spells, irregular heartbeat, unusual tiredness weakness); *arrhythmia, cardiac* (chest pain or discomfort, dizziness, fainting, fast, slow, or irregular heartbeat, lightheadedness, pounding or rapid pulse); *eosinophilia, pulmonary* (chest pain; dry cough; fever; general feeling of tiredness or weakness; rapid breathing; shortness of breath; skin rash; wheezing); *erythema multiforme* (bleeding or crusting sores on lips; chest pain; fever with or without chills; muscle cramps or pain; redness, blistering, peeling, or loosening of skin; sores, ulcers, and/or white spots in mouth; sore throat; unusual tiredness or weakness); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *Stevens-Johnson syndrome* (bleeding or crusting sores on lips; chest pain; fever with or without chills; muscle cramps or pain; redness, blistering, peeling, or loosening of skin; sores, ulcers, and/or white spots in mouth; sore throat; unusual tiredness or weakness); collapse, circulatory; neurotoxicity (hyperexcitability; seizures).

DIAGNOSTIC TESTS: *agranulocytosis*; *leukopenia*; *anemia, megaloblastic*; *eosinophilia, pulmonary*; *hematuria*; *hyperphenylalaninemia* (particularly when pyrimethamine is administered concomitantly with a sulfonamide); *pancytopenia*.

Pyrrithione (Topical)

Commercial name(s): *Brylcreem Antidandruff*; *DHS Zinc*; *Denorex Advanced Formula*; *DermaZinc Baby*; *DermaZinc Cream*; *DermaZinc Scalp*; *DermaZinc Shampoo*; *DermaZinc Soap*; *DermaZinc Spray*; *Head & Shoulders Dandruff Shampoo (Fine or Oily Hair)*; *Head & Shoulders Dandruff Shampoo (Normal Hair)*; *Head & Shoulders Dandruff Shampoo Plus Conditioner 2 in 1 (Fine or Oily Hair)*; *Head & Shoulders Dry Scalp (Normal or Dry Hair)*; *Pert Plus Dandruff Control (Complete Dandruff Shampoo Plus Conditioner In One) (Extra Body for Fine or Oily Hair)*; *Pert Plus Dandruff Control (Complete Dandruff Shampoo Plus Conditioner In One) (Normal or Dry Hair)*; *Pret Plus Dandruff Control (Complete Dandruff Shampoo Plus Conditioner In One) (Extra Body for Fine or Oily Hair)*; *Pret Plus Dandruff Control (Complete Dandruff Shampoo Plus Conditioner In One) (Normal or Dry Hair)*; *Sebulon*; *Theraplex Z*; *XSeb*; *XSeb Plus*; *Z-Plus*; *ZNP Bar*; *ZNP Shampoo*; *Zincon*; *dan-gard*.

Category: Antiseborrheic.

Conventional indications: Dandruff (treatment); Dermatitis, seborrheic (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *irritation of skin*.

Pyrvinium (Oral-Local)

Commercial name(s): *Vanquin.*

Category: Anthelmintic (oral-local).

Conventional indications: Enterobiasis (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: *discoloration of vomit and stools, bright red; disturbances, gastrointestinal (diarrhea; nausea and vomiting; stomach cramps).*

ABDOMEN: *disturbances, gastrointestinal (diarrhea; nausea and vomiting; stomach cramps).*

STOOL: *discoloration of stools and vomit, bright red.*

SKIN: *hypersensitivity (skin rash); photosensitivity (increased sensitivity of skin to sunlight).*

Quetiapine (Systemic)

Commercial name(s): Seroquel.

Category: Antipsychotic.

Conventional indications: Psychotic disorders (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *trouble in speaking.*

VERTIGO: **dizziness;** *balance control, loss of; dysarthria* (trouble in speaking); *hypotension, orthostatic* (dizziness, lightheadedness, or fainting, especially when getting up from a lying or sitting position).

HEAD: *headache.*

EYE: *changes in lenses of eyes.*

VISION: *abnormal vision.*

NOSE: *rhinitis* (stuffy or runny nose).

FACE: *mask-like face.*

MOUTH: **dryness;** *dysarthria* (trouble in speaking).

THROAT: *pharyngitis* (sore throat); *trouble in swallowing.*

EXTERNAL THROAT: *hypothyroidism* (loss of appetite; weight gain; dry, puffy skin; tiredness).

STOMACH: **dyspepsia** (indigestion); *anorexia* (decrease in appetite).

ABDOMEN: *pain, abdominal.*

RECTUM: **constipation.**

GENITALIA FEMALE: *menstrual changes.*

RESPIRATION: *dyspnea* (trouble in breathing).

CHEST: *palpitation* (feeling of fast or irregular heartbeat); *galactorrhea in females* (unusual secretion of milk); *tachycardia* (fast, pounding, or irregular heartbeat; fainting); block, heart (slow or irregular heartbeat).

EXTREMITIES: *edema, peripheral* (swelling of feet or lower legs); *hypertonia* (increased muscle tone); *movements, slowed; shuffling walk; stiffness of arms or legs; trembling and shaking of hands and fingers.*

FEVER: *temperature regulation, body, disturbances of.*

PERSPIRATION: *sweating, increased.*

SKIN: *rash.*

GENERALITIES: **weight, increased;** *asthenia* (decreased strength and energy); *extrapyramidal symptoms, parkinsonian* (trouble in speaking or swallowing; loss of balance control; mask-like face; shuffling walk; slowed movements; stiffness of arms or legs; trembling and shaking of hands and fingers); *flu-like symptoms* (fever; chills; muscle aches); *hypertonia* (increased muscle tone); *hypotension, orthostatic* (dizziness, lightheadedness, or fainting, especially when getting up from a lying or sitting position); *leukopenia* (fever, chills, or sore throat); *movements, slowed; palpitation* (feeling of fast or irregular heartbeat); *shuffling walk; hypotension* (low blood pressure); *hypothyroidism* (loss of appetite; weight gain; dry, puffy skin; tiredness); *neuroleptic malignant syndrome (NMS)* (difficult or unusually fast breathing; fast heartbeat or irregular pulse; high fever; high or low [irregular] blood pressure; increased sweating; loss of bladder control; severe muscle

stiffness; seizures; unusually pale skin; unusual tiredness or weakness; altered mental status; elevated creatine kinase, myoglobinuria (rhabdomyolysis), acute renal failure); *seizures*; *tachycardia* (fast, pounding, or irregular heartbeat; fainting).

DIAGNOSTIC TESTS: *leukopenia*; hypokalemia.

Secondary Actions or Rebound Effects: *tardive dyskinesia*, potentially irreversible.

Quinidine (Systemic)

Commercial name(s): *Apo-Quinidine*; *Biquin Durules*; *Cardioquin*; *Novoquinidin*; *Quin-Release*; *Quinaglute Dura-tabs*; *Quinate*; *Quinidex Extentabs*.

Category: Antiarrhythmic; Antimalarial.

Conventional indications: Ventricular arrhythmias (treatment); Atrial fibrillation (treatment); Atrial flutter (treatment); Atrial fibrillation (prophylaxis); Atrial flutter (prophylaxis); Malaria (treatment) [Intravenous quinidine].

Primary Actions or Pathogenetic Symptoms

MIND: coma (loss of consciousness); confusion.

VERTIGO: *syncope* (fainting).

STOMACH: **anorexia** (loss of appetite); **nausea**; **vomiting**.

ABDOMEN: pain, abdominal.

RECTUM: **diarrhea**.

RESPIRATION: arrest, respiratory (cessation of breathing).

CHEST: *extrasystoles*, *frequent*; *fibrillation*, *ventricular*; *flutter*, *ventricular*; *tachycardia*, *ventricular*; *torsades de pointes* (life-threatening ventricular tachycardia). (rebound effects?)

EXTREMITIES: **weakness**, **muscle**.

FEVER: *fever*.

SKIN: *rash*; psoriasis, psoriasiform eruption [1].

GENERALITIES: **fatigue** (unusual tiredness); **weakness**, **muscle**; *cinchonism* (confusion; blurred and/or double vision; delirium; disturbed color perception; dizziness or lightheadedness; headache; noises or ringing in the ear; visual intolerance of light); *hepatitis* (primarily fever, but may include abdominal pain and/or yellow eyes or skin); *hypotension* (dizziness; lightheadedness, or fainting); *anemia*, *hemolytic* (unusual tiredness; pale skin color); *bleeding tendency*; *hypersensitivity reaction*; *lupus erythematosus-like condition*, *systemic* (chest pain; fever; general discomfort; joint pain; joint swelling; muscle pain; skin rash; adenopathy, fever, malaise, pericarditis with or without effusions, pleuritis with or without effusions); *thrombocytopenia* (may be seen as nosebleeds or bleeding gums); coma (loss of consciousness); seizures

DIAGNOSTIC TESTS: *anemia*, *hemolytic*; *electrocardiographic changes* (QT interval prolongation; P wave disappearance; QRS complex widening); *positive ANA titer*; *thrombocytopenia*.

Complementary Bibliography: [1] Kim GK, Del Rosso JQ. Drug-provoked psoriasis: is it drug induced or drug aggravated? Understanding pathophysiology and clinical relevance. *J Clin Aesthet Dermatol* 2010; **3**(1): 32-38.

Secondary Actions or Rebound Effects: *ventricular rate, increase in, paradoxical* (change in the atrial rate preceded by a reduction in the degree of atrioventricular [AV] block, causing an increase in the rate of beats conducted to the ventricles); arrhythmias, cardiac, and conduction disturbances (dizziness, faint feeling or fainting, and/or palpitations; atrioventricular [AV] block, atrioventricular junctional or ventricular bradycardia, bundle branch block, depressed myocardial contractility, QRS complex widening, QT interval prolongation, sinus bradycardia, sinoatrial [SA] block, sinus tachycardia, torsades de pointes, ventricular fibrillation, ventricular tachycardia, and asystole).

Quinine (Systemic)

Commercial name(s): *Qualaquin; QM-260; Quinamm.*

Category: Antiprotozoal; Antimyotonic.

Conventional indications: Malaria (treatment); Leg cramps (prophylaxis and treatment); Babesiosis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: confusion; restlessness.

VERTIGO: dizziness; fainting; lightheadedness.

VISION: *visual disturbances* (blurred vision; disturbed color perception; double vision; night blindness; complete blindness); blurred vision.

STOMACH: disturbances, gastrointestinal (abdominal or stomach cramps or pain; diarrhea; nausea; vomiting).

ABDOMEN: disturbances, gastrointestinal (abdominal or stomach cramps or pain; diarrhea; nausea; vomiting).

RESPIRATION: shortness of breath; troubled breathing.

CHEST: heartbeat, rapid or irregular; pain, chest; toxicity, cardiovascular (blurred vision; chest pain; confusion; dizziness; fainting; lightheadedness; rapid or irregular heartbeat; unusual tiredness or weakness).

EXTREMITIES: *antimyotonic* (muscle relaxation).

SLEEP: sleepiness.

GENERALITIES: *antimyotonic* (muscle relaxation); *agranulocytosis* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; sore throat; unusual bleeding or bruising; unusual tiredness or weakness); *hypoglycemia* (anxiety; behavior change, similar to drunkenness; blurred vision; cold sweats; confusion; convulsions or coma; cool pale skin; difficulty in concentrating; drowsiness; excessive hunger; fast heartbeat; headache; nausea; nervousness; nightmares; restless sleep; shakiness; slurred speech; unusual tiredness or weakness); *leukopenia* (black, tarry stools; blood in urine or stools; cough or

hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; sore throat; unusual bleeding or bruising; unusual tiredness or weakness); *thrombocytopenia* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; sore throat; unusual bleeding or bruising; unusual tiredness or weakness); *cinchonism* (abdominal pain; blurred vision; change in color vision; diarrhea; headache; nausea; ringing or buzzing in ears; vomiting); *hemolytic uremic syndrome* (abdominal pain; bruising; fever or chills; increased sweating; muscle aches; nausea; vomiting; hemolytic anemia, thrombocytopenia, disseminated intravascular coagulation [DIC], and acute renal failure); *hypersensitivity reactions* (abdominal pain; difficulty in breathing and/or swallowing; fever; hives; nausea; reddening of the skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness); *hypoprothrombinemia* (unusual bleeding or bruising); heartbeat, rapid or irregular; seizures; tiredness or weakness, unusual; toxicity, central nervous system (coma; confusion; restlessness; seizures; shortness of breath or troubled breathing; sleepiness).

DIAGNOSTIC TESTS: *agranulocytosis*; *hypoglycemia*; *leukopenia*; *thrombocytopenia*; *hypoprothrombinemia*.

Quinupristin and Dalfopristin (Systemic)

Commercial name(s): *Synercid*.

Category: Antibacterial (systemic).

Conventional indications: Septicemia, bacterial (treatment); Skin and skin structure infections, complicated (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion*.

VERTIGO: *dizziness*.

HEAD: *headache*.

MOUTH: *moniliasis, oral* (oral yeast infection).

STOMACH: *nausea*; *vomiting*; *dyspepsia* (stomach discomfort or bloating).

ABDOMEN: *enterocolitis, pseudomembranous* (abdominal or stomach cramps and pain, severe; abdominal tenderness; diarrhea, watery and severe, which may also be bloody; fever).

RECTUM: *diarrhea*; *constipation*.

URINE: *hematuria* (blood in urine).

GENITALIA FEMALE: *vaginitis* (redness, burning sensation, or pain in vagina).

RESPIRATION: dyspnea (in animals given extremely high doses).

CHEST: *pain, chest*; *palpitation* (pounding or racing of the heart).

EXTREMITIES: *arthralgia* (joint pain); *myalgia* (muscle pain); *cramps, leg*; *hypertonia* (unusual muscle tone); *myasthenia* (muscle weakness); ataxia (in animals given extremely high doses).

SKIN: *pruritus* (itching); *rash*; *rash, maculopapular* (skin rash with red patches); *urticaria* (hives).

Materia Medica - Letter Q

GENERALITIES: infusion site reaction (pain, redness, and/or swelling at the place of injection); *arthralgia* (joint pain); *myalgia* (muscle pain); *pain*; *thrombophlebitis* (pain at the injection site); *hypertonia* (unusual muscle tone); *palpitation* (pounding or racing of the heart); *myasthenia* (muscle weakness); *paresthesia* (numbness or tingling sensation); tremors (in animals given extremely high doses).

DIAGNOSTIC TESTS: *hematuria*.

Rabeprazole (Systemic)

Commercial name(s): *AcipHex*.

Category: Gastric acid pump inhibitor; Antiulcer agent.

Conventional indications: Gastroesophageal reflux disease [GERD] (prophylaxis and treatment); Hypersecretory conditions, gastric (treatment); Zollinger-Ellison syndrome (treatment); Ulcer, duodenal (treatment); Ulcer, duodenal, *Helicobacter pylori*-associated (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: *coma* (change in consciousness; loss of consciousness); *disorientation and delirium* (confusion about identity, place, person, and time; unusual excitement, nervousness, or restlessness; hallucinations; holding false beliefs that cannot be changed by fact).

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *angioedema* (large, hive-like swelling on eyelids).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

STOMACH: *reduction of gastric acid* (hypochloremic alkalosis); *dyspepsia* (heartburn); *nausea*; *pain*; *vomiting*.

ABDOMEN: *flatulence* (gas).

RECTUM: *constipation*.

KIDNEYS: *nephritis, interstitial* (bloody or cloudy urine; fever; skin rash; swelling of feet or lower legs; greatly decreased frequency of urination or amount of urine).

URINE: *hematuria* (bloody urine).

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: *apnea* (breathing interruptions); *pneumonia, interstitial* (cough; difficult breathing; fever; shortness of breath).

CHEST: *pneumonia, interstitial* (cough; difficult breathing; fever; shortness of breath).

EXTREMITIES: *angioedema* (large, hive-like swelling on hands, legs, feet); *rhabdomyolysis* (dark-colored urine; fever, muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness).

SLEEP: *somnolence* (sleepiness).

SKIN: *pruritus* (itchy skin); *eruptions, bullous and other drug* (skin blisters); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *necrolysis, toxic epidermal* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

GENERALITIES: *asthenia* (feeling weak); *malaise* (feeling weak); *paresthesia* (numbness, tingling, pain, or weakness in hands or feet); *agranulocytosis, sometimes fatal*

(chills; fever; sore throat; unusual tiredness or weakness); *anaphylaxis* (cough; difficulty swallowing; dizziness; fast heartbeat; hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *anemia* (unusual tiredness or weakness); *anemia, hemolytic* (continuing unusual tiredness or weakness); *coma* (change in consciousness; loss of consciousness); *convulsions* (seizures); *death, sudden* (no pulse; no blood pressure; no breathing); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *hyperammonemia* (increase in frequency of seizures; loss of appetite; continuing nausea or vomiting; swelling of face; tiredness and weakness; yellow eyes or skin); *hepatitis* (yellow eyes or skin); *jaundice* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *leukopenia* (continuing ulcers or sores in mouth); *neutropenia* (continuing ulcers or sores in mouth); *pancytopenia* (unusual bleeding or bruising); *rhabdomyolysis* (dark-colored urine; fever, muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *thrombocytopenia* (unusual bleeding or bruising).

DIAGNOSTIC TESTS: *agranulocytosis, sometimes fatal; anemia; anemia, hemolytic; hematuria; hyperammonemia; neutropenia; pancytopenia; thrombocytopenia.*

Secondary Actions or Rebound Effects: *hyperplasia, cell, enterochromaffin-like (ECL), increase in the incidence of.*

Rabies Immune Globulin (Systemic)

Commercial name(s): *BayRab; Hyperab; Imogam; Imogam Rabies-HT.*

Category: Immunizing agent (passive).

Conventional indications: Rabies (prophylaxis).

Primary Actions or Pathogenetic Symptoms

FEVER: *fever.*

GENERALITIES: *pain, soreness, tenderness, or stiffness of the muscles at the place(s) of injection; anaphylaxis; edema, angioneurotic; nephrotic syndrome.*

Rabies Vaccine (Systemic)

Commercial name(s): *Imovax; Imovax I.D.*

Category: Immunizing agent (active).

Conventional indications: Rabies (prophylaxis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

STOMACH: nausea.

ABDOMEN: pain, abdominal (stomach or abdomen pain).

EXTREMITIES: aches, muscle or joint.

CHILL: chills.

FEVER: fever.

GENERALITIES: aches, muscle or joint; fatigue (tiredness or weakness); itching, pain, redness, or swelling at the place of injection; malaise (general feeling of discomfort or illness); *immune complex-like reaction* (hives or skin rash, sometimes accompanied by arthralgia, arthritis, angioedema, nausea, vomiting, fever, or malaise); *neurologic illness resembling Guillain-Barré syndrome*.

Racemethionine (Systemic)

Commercial name(s): *M-Caps; Pedameth; Uracid*.

Category: Acidifier (urinary); Antidote (to acetaminophen overdose).

Conventional indications: Dermatitis, contact (treatment) and Urine odor; Toxicity, acetaminophen (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: nausea; vomiting.

URINE: acid urine.

SLEEP: drowsiness.

DIAGNOSTIC TESTS: urine, acid.

Radioiodinated Albumin (Systemic)

Commercial name(s): *IHSA I 125; Jeanatope; Megatope*.

Category: Diagnostic aid, radioactive (fluid and blood loss).

Conventional indications: Blood and plasma volumes determinations.

Primary Actions or Pathogenetic Symptoms

GENERALITIES: allergic reactions.

Presently, there are no known side/adverse effects associated with the use of iodinated I 125 or I 131 albumin as a diagnostic aid. However, as with any protein-containing preparation, allergic reactions are possible.

Raloxifene (Systemic)

Commercial name(s): *Evista*.

Category: Estrogen receptor modulator, selective; Osteoporosis prophylactic.

Conventional indications: Osteoporosis, postmenopausal (prophylaxis); Osteoporosis, postmenopausal (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental.*

HEAD: *migraine headaches.*

EYE: *occlusion, retinal vein* (decreased vision or other changes in vision).

NOSE: *sinusitis.*

THROAT: *pharyngitis* (body aches or pain; congestion in throat; cough; dryness or soreness of throat; fever; loss of voice; runny nose).

STOMACH: *disturbances, gastrointestinal* (nausea; passing of gas; upset stomach; vomiting); *gastroenteritis* (abdominal pain, severe; diarrhea; loss of appetite; nausea; weakness).

ABDOMEN: *disturbances, gastrointestinal* (nausea; passing of gas; upset stomach; vomiting); *gastroenteritis* (abdominal pain, severe; diarrhea; loss of appetite; nausea; weakness).

BLADDER: *cystitis* (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate); **infection, urinary tract** (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate).

KIDNEYS: **infection, urinary tract** (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate).

GENITALIA FEMALE: **endometrial disorder; vaginitis** (vaginal itching); *leukorrhea* (increased white vaginal discharge).

LARYNX AND TRACHEA: *laryngitis* (cough; dryness or soreness of throat; hoarseness; trouble in swallowing).

RESPIRATION: *pneumonia* (aching body pains; congestion in lungs; difficulty in breathing; fever; sore throat).

CHEST: **pain, chest;** *pneumonia* (aching body pains; congestion in lungs; difficulty in breathing; fever; sore throat).

EXTREMITIES: **cramping, leg; edema, peripheral** (swelling of hands, ankles, or feet); *arthralgia; arthritis; myalgia* (joint or muscle pain; swollen joints).

SLEEP: *insomnia* (trouble in sleeping).

FEVER: **fever.**

PERSPIRATION: *sweating.*

SKIN: **rash.**

GENERALITIES: **infection of the body as a whole; influenza-like syndrome; sinusitis;** *arthralgia; arthritis; hot flashes* (feelings of warmth; sudden sweating); *myalgia* (joint or muscle pain; swollen joints); *weight gain, unexplained; thromboembolism* (coughing blood; headache or migraine headache; loss of or change in speech, coordination, or vision; pain or numbness in chest, arm, or leg; shortness of breath, unexplained); *thrombus formation* (coughing blood; headache or migraine headache; loss of or change in speech, coordination, or vision; pain or numbness in chest, arm, or leg; shortness of breath, unexplained).

Raltitrexed (Systemic)

Commercial name(s): *Tomudex*.

Category: Antineoplastic.

Conventional indications: Carcinoma, colorectal (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: **alopecia** (hair loss; thinning of hair); *headache*.

MOUTH: **stomatitis** (swelling or inflammation of the mouth); *taste disturbance* (change in taste; bad unusual or unpleasant [after] taste).

STOMACH: **anorexia** (loss of appetite; weight loss); **nausea**; **pain, abdominal** (stomach or abdomen pain); **vomiting**.

ABDOMEN: **pain, abdominal** (stomach or abdomen pain).

RECTUM: **constipation**; **diarrhea** (increase in bowel movements; loose stools; soft stools).

CHEST: *arrhythmias* (dizziness; fainting; fast, slow, or irregular heartbeat); *congestive heart failure* (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing).

EXTREMITIES: *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet).

FEVER: **fever**.

SKIN: **alopecia** (hair loss; thinning of hair); **rash**.

GENERALITIES: **alopecia** (hair loss; thinning of hair); **anemia** (pale skin; troubled breathing, exertional; unusual bleeding or bruising; unusual tiredness or weakness); **asthenia** (lack or loss of strength); **flu syndrome** (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **leukopenia** (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *arrhythmias* (dizziness; fainting; fast, slow, or irregular heartbeat); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet); *thrombocytopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *weight loss*; *bone marrow depression* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: **anemia**; **leukopenia**; *thrombocytopenia*.

Ramelteon (Systemic)

Commercial name(s): *Rozerem*.

Category: Sedative-hypnotic.

Conventional indications: Insomnia (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *peacefulness* (serenity, calm); *depression* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping).

VERTIGO: *dizziness*.

HEAD: *headache*.

MOUTH: *dysgeusia* (loss of taste; change in taste).

STOMACH: *nausea*.

RECTUM: *diarrhea*.

RESPIRATION: *infection, upper respiratory tract* (ear congestion; nasal congestion; chills; cough; fever; sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

EXTREMITIES: *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving).

SLEEP: *somnolence* (sleepiness or unusual drowsiness).

GENERALITIES: *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *fatigue, infection, upper respiratory tract* (ear congestion; nasal congestion; chills; cough; fever; sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *influenza* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving).

DIAGNOSTIC TESTS: *blood cortisol decreased*.

Secondary Actions or Rebound Effects: *insomnia exacerbated* (sleeplessness; trouble sleeping; unable to sleep).

Rasburicase (Systemic)

Commercial name(s): *Elitek; Fasturtec*.

Category: Antineoplastic adjunct.

Conventional indications: Hyperuricemia, neoplasm-associated, pediatric (treatment); Hyperuricemia, neoplasm-associated, adult (prophylaxis or treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache; cerebrovascular disorder* (blurred vision; headache, sudden and severe; inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe).

EYE: *hemorrhage, retinal* (decreased vision or other changes in vision).

MOUTH: **mucositis** (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth).

STOMACH: **nausea; vomiting.**

ABDOMEN: **pain, abdominal;** ileus (abdominal pain; severe constipation; severe vomiting); obstruction, intestinal (abdominal pain; severe constipation; nausea; vomiting).

RECTUM: **constipation** (difficulty having a bowel movement); **diarrhea; mucositis** (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth).

KIDNEYS: failure, renal, acute (lower back/side pain; decreased frequency/amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure).

RESPIRATION: cyanosis (bluish color of fingernails, lips, skin, palms, or nail beds); distress, respiratory (shortness of breath; troubled breathing; tightness in chest or wheezing); pneumonia (chest pain; cough, fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

CHEST: arrest, cardiac (stopping of heart; no blood pressure or pulse; unconsciousness); arrhythmia (dizziness; fainting; fast, slow, or irregular heartbeat); edema, pulmonary (chest pain; difficult, fast, noisy breathing, sometimes with wheezing; blue lips and fingernails; pale skin; increased sweating; coughing that sometimes produces a pink, frothy sputum; shortness of breath; swelling in legs and ankles); failure, cardiac (chest pain or discomfort; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; weight gain; wheezing); infarction, myocardial (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating, vomiting); pain, chest; pneumonia (chest pain; cough, fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

EXTREMITIES: cyanosis (bluish color of fingernails, lips, skin, palms, or nail beds).

CHILL: rigors (feeling unusually cold; shivering).

FEVER: **fever;** neutropenia with fever (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness).

SKIN: cellulitis (itching, pain, redness, swelling, tenderness or warmth on skin); rash, severe.

GENERALITIES: **mucositis** (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth); arrhythmia (dizziness; fainting; fast, slow, or irregular heartbeat); convulsions (seizures); cyanosis (bluish color of fingernails, lips, skin, palms, or nail beds); dehydration (confusion; decreased urination; dizziness; dry mouth; fainting; increase in heart rate; lightheadedness; rapid breathing; sunken eyes; thirst; unusual tiredness or weakness; wrinkled skin); hemorrhage (bleeding gums; coughing up blood; difficulty in breathing or swallowing; dizziness; headache; increased menstrual flow or vaginal bleeding; nosebleeds; paralysis; prolonged bleeding from cuts; red or dark brown urine; red or black, tarry stools; shortness of breath); hot flashes (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest;

sudden sweating); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating, vomiting); *infection* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *neutropenia with or without fever* (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *sepsis* (chills; confusion; dizziness; lightheadedness; fainting; fast heartbeat; fever; rapid, shallow breathing); *thrombophlebitis* (changes in skin color; pain, tenderness, swelling of foot or leg); *thrombosis* (severe, headaches of sudden onset; sudden loss of coordination; pains in chest, groin, or legs, especially calves of legs; sudden onset of shortness of breath for no apparent reason; sudden onset of slurred speech; sudden vision changes); *anaphylaxis* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *hemolysis* (abdominal pain; back pain; dark urine; decreased urination; fever; tiredness; yellow eyes or skin); *hypersensitivity reactions* (bronchospasm, chest pain and tightness, dyspnea, hypoxia, hypotension, shock and/or urticaria); *immunogenicity*; *methemoglobinemia* (bluish-colored lips, fingernails, palms; dark urine; difficulty breathing; dizziness or lightheadedness; fatigue; fever; headache; pale skin; rapid heart rate; shortness of breath; sore throat; unusual bleeding or bruising; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *neutropenia with or without fever*; *pancytopenia*; *hemolysis*; *methemoglobinemia*.

Rauwolfia Alkaloids (Systemic)

Commercial name(s): *Harmonyl*; *Novoreserpine*; *Raudixin*; *Rauval*; *Rauverid*; *Reserfia*; *Serpalan*; *Serpasil*; *Wolfina*.

Category: Antihypertensive; Vasospastic therapy adjunct.

Conventional indications: Hypertension (treatment); Raynaud’s phenomenon (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety*; *concentrate, inability to*; *depression, mental*; *nervousness*.

VERTIGO: *dizziness*; *faintness*.

HEAD: *headache*.

EYE: pupils, pinpoint.

NOSE: *congestion* (stuffy nose).

MOUTH: *dryness*.

STOMACH: *anorexia* (loss of appetite); *nausea*; *vomiting*; *cramps*; *pain*; *vomit, bloody*.

RECTUM: *diarrhea*.

STOOL: *black, tarry stools*.

BLADDER: *urination, painful or difficult.*

GENITALIA MALE: *impotence; sexual interest, decreased.*

GENITALIA FEMALE: *sexual interest, decreased.*

RESPIRATION: *shortness of breath.*

CHEST: *arrhythmias* (irregular heartbeat); *bradycardia* (slow heartbeat); *pain, chest;* pulse, slow.

EXTREMITIES: *edema, peripheral* (swelling of feet and lower legs); *stiffness of hands and fingers; trembling and shaking of hands and fingers.*

SLEEP: *drowsiness; sleeplessness, early-morning.*

DREAMS: *nightmares; vivid dreams.*

SKIN: *itching; rash; flushing.*

GENERALITIES: *hypotension; arrhythmias* (irregular heartbeat); *bradycardia* (slow heartbeat); *energy, lack of; weakness; thrombocytopenia* (unusual bleeding or bruising); pulse, slow; flushing.

DIAGNOSTIC TESTS: *thrombocytopenia.*

Rauwolfia Alkaloids and Thiazide Diuretics (Systemic)

Commercial name(s): *Demi-Regroton; Diupres; Diurigen with Reserpine; Diutensen-R; Dureticyl; Enduronyl; Enduronyl Forte; Hydropres; Oreticyl; Oreticyl Forte; Rauzide; Regroton.*

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

GENERALITIES: *hypotension.*

Rauwolfia Alkaloids - See Rauwolfia Alkaloids (Systemic).

Thiazide Diuretics - See Diuretics, Thiazide (Systemic).

Remifentanil (Systemic)

Commercial name(s): *Ultiva.*

Category: Anesthesia adjunct (opioid analgesic).

Conventional indications: Anesthesia adjunct.

Primary Actions or Pathogenetic Symptoms

MIND: *anesthesia* (unconsciousness); *agitation* (rebound effect?).

HEAD: *headache.*

STOMACH: *nausea; vomiting.*

LARYNX AND TRACHEA: closure, glottis.

RESPIRATION: *apnea* (bluish lips or skin); *depression, respiratory* (slow breathing); hypoxemia (bluish lips or skin).

CHEST: *rigidity, chest wall* (difficulty breathing); *bradycardia.*

EXTREMITIES: rigidity, muscle.

CHILL: *shivering*.

SKIN: *pruritus* (itching).

GENERALITIES: *analgesia* (pain absence); *anesthesia*; **hypotension**; **rigidity, muscle**; *bradycardia*; *hypertension*; *pain, postoperative*; hypoxemia (bluish lips or skin).

DIAGNOSTIC TESTS: hypoxemia.

Repaglinide (Systemic)

Commercial name(s): *Prandin*.

Category: Antidiabetic agent.

Conventional indications: Diabetes, type 2 (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

NOSE: **rhinitis** (stuffy nose); **sinusitis** (headache; runny nose; sinus congestion with pain).

TEETH: *tooth disorder*.

STOMACH: **nausea**; *indigestion*; *vomiting*.

RECTUM: **diarrhea**; *constipation*.

BLADDER: *infection, urinary tract* (bloody or cloudy urine; burning, painful, or difficult urination; frequent urge to urinate).

KIDNEYS: *infection, urinary tract* (bloody or cloudy urine; burning, painful, or difficult urination; frequent urge to urinate).

RESPIRATION: **bronchitis** (cough; fever; pain in the chest; shortness of breath); **infection, upper respiratory** (cough; fever; runny or stuffy nose; sneezing; sore throat).

CHEST: **bronchitis** (cough; fever; pain in the chest; shortness of breath); *angina*; *pain, chest*; *arrhythmias*; *infarction, myocardial*.

BACK: **pain, back**.

EXTREMITIES: **arthralgia** (joint pain).

GENERALITIES: *hypoglycemia* (anxiety; behavior change similar to drunkenness; blurred vision; cold sweats; coma; confusion; cool pale skin; difficulty in concentrating; drowsiness; excessive hunger; fast heartbeat; headache; nausea; nervousness; nightmares; restless sleep; seizures; shakiness; slurred speech; unusual tiredness or weakness); **arthralgia** (joint pain); **infection, upper respiratory** (cough; fever; runny or stuffy nose; sneezing; sore throat); **sinusitis** (headache; runny nose; sinus congestion with pain); *allergic reaction* (fever with or without chills; headache; nausea with or without vomiting; runny nose; shortness of breath, tightness in chest, trouble in breathing, or wheezing; skin rash, itching, or hives; tearing of eyes); *paresthesias* (sensation of burning, numbness, tightness, tingling, warmth, or heat); *arrhythmias*; *hypertension*; *infarction, myocardial*; *leukopenia* (cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination); *mortality, cardiovascular, increased*; *thrombocytopenia* (black, tarry stools; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: *hypoglycemia*; *leukopenia*; *thrombocytopenia*.

Reserpine, Hydralazine, and Hydrochlorothiazide (Systemic)

Commercial name(s): *Cam-Ap-Es; Cherapas; Ser-A-Gen; Ser-Ap-Es; Seralazide; Serpazide; Tri-Hydroserpine; Unipres.*

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

GENERALITIES: *hypotension.*

Reserpine - See Rauwolfia Alkaloids (Systemic).

Hydralazine - See Hydralazine (Systemic).

Hydrochlorothiazide - See Diuretics, Thiazide (Systemic).

Resorcinol (Topical)

Commercial name(s): *RA.*

Category: Keratolytic (topical).

Conventional indications: Acne vulgaris (treatment); Dermatitis, seborrheic (treatment); Eczema (treatment); Psoriasis (treatment); Urticaria (treatment); Skin disorders, inflammatory (treatment); Calluses (treatment); Corns (treatment); Verruca vulgaris (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness; restlessness.*

STOMACH: *nausea; pain; vomiting.*

RECTUM: *diarrhea.*

RESPIRATION: *shortness of breath; troubled breathing.*

CHEST: *heartbeat, slow.*

SLEEP: *drowsiness.*

PERSPIRATION: *sweating.*

SKIN: *peeling; redness; irritation not present before therapy.*

GENERALITIES: *heartbeat, slow; methemoglobinemia (dizziness; severe or continuing headache; troubled breathing; unusual tiredness or weakness).*

DIAGNOSTIC TESTS: *methemoglobinemia.*

Resorcinol and Sulfur (Topical)

Commercial name(s): *Acne-Aid Gel; Acnomel Acne Cream; Acnomel Cake; Acnomel Cream; Acnomel Vanishing Cream; Bensulfoid Cream; Clearasil Adult Care Medicated Blemish Cream; Clearasil Adult Care Medicated Blemish Stick; Night Cast Special Formula Mask-lotion; Rezamid Acne Treatment; Rezamid Lotion; Sulforcin.*

Category: Antiacne agent (topical); Keratolytic (topical).

Conventional indications: Acne vulgaris (treatment); Skin conditions related to acne (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *peeling*.

Resorcinol - See Resorcinal (Topical).

Sulfur - See Sulfur (Topical).

Respiratory Syncytial Virus Immune Globulin Intravenous (Systemic)

Commercial name(s): *RespiGam*.

Category: Immunizing agent (passive).

Conventional indications: Respiratory syncytial virus infection (prophylaxis).

Primary Actions or Pathogenetic Symptoms

STOMACH: *vomiting*.

RESPIRATION: *distress, respiratory*.

CHEST: *tachycardia* (increased heart rate).

FEVER: *fever of 39.2° C (102.6° F) or more*.

GENERALITIES: *allergic reactions* (acute episode of cyanosis, mottling, fever; respiratory distress); *anaphylactic reaction* (difficulty in breathing and swallowing; hives; itching, especially of feet and hands; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *angioneuropathy*; *meningitis syndrome, aseptic (AMS)* (severe headache, drowsiness, fever, photophobia, painful eye movements, muscle rigidity, and nausea and vomiting); *tachycardia* (increased heart rate).

DIAGNOSTIC TESTS: *pleocytosis, cerebrospinal fluid, predominantly granulocytic; protein levels, elevated*.

Reteplase, Recombinant (Systemic)

Commercial name(s): *Retavase*.

Category: Thrombolytic.

Conventional indications: Thrombosis, coronary arterial, acute (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *stroke, hemorrhagic* (confusion; double vision; impairment of speech; weakness in arms or legs); *hemorrhage, intracranial*.

MOUTH: *bleeding from gums*.

STOMACH: *nausea; vomiting*.

CHEST: *arrhythmias, cardiac* (during or following coronary thrombolysis; sinus bradycardia, accelerated idioventricular rhythm, ventricular premature depolarizations, supraventricular tachycardia, ventricular tachycardia, and ventricular fibrillation).

FEVER: *fever*.

GENERALITIES: *bleeding, internally and superficially* (intracranial, retroperitoneal, gastrointestinal, genitourinary, or respiratory; venous cutdowns, arterial punctures, sites of recent surgical intervention; bleeding or oozing from cuts, invaded or disturbed sites, wounds, or gums; abdominal pain or swelling; back pain or backaches; bloody urine; bloody or black, tarry stools; constipation caused by hemorrhage-induced paralytic ileus or intestinal obstruction; coughing up blood; dizziness; headaches, sudden, severe, and/or continuing; joint pain, stiffness, or swelling; muscle pain or stiffness, severe or continuing; nosebleeds; unexpected or unusually heavy bleeding from vagina; vomiting of blood or material that looks like coffee grounds); *allergic reaction* (flushing or redness of skin; mild headache; mild muscle pain; nausea; skin rash, hives, or itching; troubled breathing or wheezing); *embolism, cholesterol; hypotension; stroke, hemorrhagic* (confusion; double vision; impairment of speech; weakness in arms or legs); *arrhythmias, cardiac* (during or following coronary thrombolysis; sinus bradycardia, accelerated idioventricular rhythm, ventricular premature depolarizations, supraventricular tachycardia, ventricular tachycardia, and ventricular fibrillation).

Rh O(D) Immune Globulin (Systemic)

Commercial name(s): *BayRho-D Full Dose; BayRho-D Mini-Dose; MICRhoGAM; RhoGAM; WinRho SDF*.

Category: Immunizing agent (passive); Platelet count stimulator (systemic).

Conventional indications: Sensitization of Rh O(D)-negative females to Rh O(D)-positive blood (prophylaxis); Rh hemolytic disease of the newborn (prophylaxis); Thrombocytopenic purpura, immune (treatment).

Primary Actions or Pathogenetic Symptoms

KIDNEYS: *insufficiency, renal* (lower back pain; decreased frequency /amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure).

FEVER: *fever*.

GENERALITIES: *coagulation; soreness at the place of injection; anemia* (pale skin; troubled breathing, exertional; unusual bleeding or bruising; unusual tiredness or weakness); *hemolysis, intravascular*.

DIAGNOSTIC TESTS: *anemia; hemolysis, intravascular*.

Ribavirin (Systemic)

Commercial name(s): *Copegus; Rebetol; Virazole*.

Category: Antiviral (systemic).

Conventional indications: Chronic Hepatitis C (treatment) [Ribavirin capsules and ribavirin oral solution (Rebetol)]; Respiratory syncytial virus (RSV) infection, lower respiratory tract (treatment) [Ribavirin inhalation solution]; Influenza A (treatment), or Influenza B (treatment) [Ribavirin inhalation solution]; Lassa fever (prophylaxis and treatment), or Viral hemorrhagic fever (prophylaxis and treatment) [Oral and intravenous ribavirin].

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety**; **depression** (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping) [Oral dosage forms]; **irritability** [Oral dosage forms]; emotional lability (crying; depersonalization; dysphoria; euphoria; mental depression; paranoia; quick to react or overreact emotionally; rapidly changing moods) [Oral dosage forms]; nervousness [Oral dosage forms]; suicide.

VERTIGO: **dizziness** [Oral dosage forms].

HEAD: headache [Oral dosage forms in patients; Inhalation form in healthcare worker].

EYE: itching [Inhalation form in healthcare worker]; redness [Inhalation form in healthcare worker]; swelling [Inhalation form in healthcare worker].

NOSE: sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing) [Oral dosage forms].

MOUTH: taste perversion (change in taste) [Oral dosage forms].

STOMACH: **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain) [Oral dosage forms]; anorexia [Oral dosage forms]; nausea [Oral dosage forms]; vomiting [Oral dosage forms].

RESPIRATION: **dyspnea** (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: **pain, chest.**

EXTREMITIES: myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving) [Oral dosage forms].

SLEEP: insomnia [Oral dosage forms].

CHILL: **rigors** (feeling unusually cold; shivering) [Oral dosage forms].

FEVER: fever [Oral dosage forms].

SKIN: **pruritus** (itching skin) [Oral dosage forms]; rash [Oral dosage forms; inhalation]; *irritation due to prolonged drug contact* [Inhalation].

GENERALITIES: **anemia** (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness; worsening of cardiac disease that has lead to fatal and non-fatal myocardial infarctions); **asthenia** (lack or loss of strength) [Oral dosage forms]; **flu-like symptoms** (fatigue, pyrexia, myalgia, headache and rigors); **lymphopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **neutropenia** (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); **thrombocytopenia** (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); fatigue [Oral dosage forms]; sinusitis (pain or tenderness

around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing) [Oral dosage forms]; *drug abuse, relapse of* (overdose); *infections, bacterial* (sepsis, osteomyelitis, endocarditis, pyelonephritis and pneumonia).

DIAGNOSTIC TESTS: anemia; lymphopenia; neutropenia; thrombocytopenia.

Ribavirin and Interferon Alfa-2b, Recombinant (Systemic)

Commercial name(s): *Intron A; Rebetol; Rebetron (in combination with Intron A); Rebetron (in combination with Rebetol).*

Category: Antiviral.

Conventional indications: Hepatitis C, chronic, active (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: concentration, impaired; depression (mood changes); emotional lability (large swing in moods); irritability; nervousness; behavior, suicidal (thoughts of suicide).

VERTIGO: dizziness.

HEAD: alopecia (thinning of the hair, temporary); headache.

NOSE: sinusitis (headache; stuffy nose).

MOUTH: taste, impaired.

EXTERNAL THROAT: thyroid function abnormalities (usually asymptomatic).

STOMACH: anorexia (loss of appetite); dyspepsia (upset stomach); nausea; vomiting.

RESPIRATION: dyspnea (trouble breathing).

CHEST: pain, chest.

EXTREMITIES: arthralgia (joint pain); myalgia (muscle aches and pain); pain, musculoskeletal (muscle aches and pain).

SLEEP: insomnia (trouble sleeping).

CHILL: rigors (shaking).

FEVER: fever.

SKIN: alopecia (thinning of the hair, temporary); pruritus (red itchy skin); rash (red itchy skin).

GENERALITIES: alopecia (thinning of the hair, temporary); anemia, hemolytic (unusual tiredness or weakness); arthralgia (joint pain); asthenia (unusual tiredness or weakness); fatigue; inflammation, injection site (redness and warm feeling at the site of injection); influenza-like symptoms (asthenia); myalgia (muscle aches and pain); pain, musculoskeletal (muscle aches and pain); sinusitis (headache; stuffy nose); thyroid function abnormalities (usually asymptomatic).

DIAGNOSTIC TESTS: anemia, hemolytic; thyroid function abnormalities (usually asymptomatic).

Riboflavin (Systemic)

Other commonly used names: Vitamin B₂.

Commercial name(s): *Aqua-Flave; Beflavin; Beflavine; Bisulase; Dermadram; Fiboflavin; Flavaxin; Flavin; Flavin Bb; Flaxain; HSDB 817; Hyflavin; Hyre; Lactobene; Ovoflavin; Ribipca; Ribocrisina; Riboderm; Ribosyn; Ribotone; Ribovel; Vitaflavine; Vitasan B2.*

Category: Nutritional supplement (vitamin).

Conventional indications: Riboflavin deficiency (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

URINE: *discoloration of urine, yellow* (large doses).

DIAGNOSTIC TESTS: *discoloration of urine, yellow.*

While toxicity with high doses of riboflavin has not been reported, high doses of other water-soluble vitamins have been known to cause problems.

Rifabutin (Systemic)

Commercial name(s): *Mycobutin.*

Category: Antibacterial (antimycobacterial).

Conventional indications: *Mycobacterium avium* complex (MAC) disease (prophylaxis); Tuberculosis (in HIV-infected patients on antiretroviral therapy) (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache.*

EYE: *discoloration of tears, reddish-orange to reddish-brown; deposits, corneal, tiny, almost transparent, asymptomatic, peripheral and central* (pediatric patients); *uveitis* (eye pain; loss of vision).

MOUTH: *discoloration of saliva or sputum, reddish-orange to reddish-brown; taste perversion; dysgeusia* (change in taste).

THROAT: *discoloration of saliva or sputum, reddish-orange to reddish-brown.*

STOMACH: *eructation* (belching; bloated, full feeling; excess air or gas in stomach); **intolerance, gastrointestinal** (anorexia [loss of appetite]; diarrhea; dyspepsia [heartburn, indigestion and/or sour stomach]; nausea; vomiting).

ABDOMEN: **flatulence; intolerance, gastrointestinal** (anorexia [loss of appetite]; diarrhea; dyspepsia [heartburn, indigestion and/or sour stomach]; nausea; vomiting); **pain, abdominal.**

STOOL: *discoloration of feces, reddish-orange to reddish-brown.*

URINE: *discoloration of urine, reddish-orange to reddish-brown.*

CHEST: *pain, chest.*

EXTREMITIES: *myalgia* (muscle pain); *arthralgia* (joint pain); *myositis* (muscle inflammation or pain; unusual tiredness or weakness).

SLEEP: *insomnia* (trouble in sleeping).

FEVER: *fever.*

PERSPIRATION: *discoloration of sweat, reddish-orange to reddish-brown.*

SKIN: *allergic reaction* (skin itching and/or rash); **discoloration of skin, reddish-orange to reddish-brown; rash.**

GENERALITIES: neutropenia (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *asthenia* (loss of strength or energy); *myalgia* (muscle pain); *arthralgia* (joint pain); *leukopenia* (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *myositis* (muscle inflammation or pain; unusual tiredness or weakness); *pseudojaundice* (yellow skin); *thrombocytopenia* (bruising or purple spots on skin).

DIAGNOSTIC TESTS: discoloration of urine, reddish-orange to reddish-brown; neutropenia; leukopenia; thrombocytopenia.

Rifampin (Systemic)

Commercial name(s): *Rifadin; Rifadin IV; Rimactane; Rofact.*

Category: Antibacterial (antimycobacterial; antileprosy agent).

Conventional indications: Tuberculosis (treatment); Meningococcal infections (prophylaxis); *Haemophilus influenzae* type b infection (prophylaxis); Leprosy (treatment); Mycobacterial infections, atypical (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: obtundation, mental (mental changes).

EYE: discoloration of tears, reddish-orange to reddish-brown.

FACE: edema, periorbital or facial (swelling around the eyes or the whole face).

MOUTH: discoloration of saliva or sputum, reddish-orange to reddish-brown.

THROAT: discoloration of saliva or sputum, reddish-orange to reddish-brown.

STOMACH: cramps.

RECTUM: diarrhea.

STOOL: discoloration of feces, reddish-orange to reddish-brown.

KIDNEYS: *nephritis, interstitial* (bloody or cloudy urine, greatly decreased frequency of urination or amount of urine); *failure, renal, increased chance of.*

URINE: discoloration of urine, reddish-orange to reddish-brown.

PERSPIRATION: discoloration of sweat, reddish-orange to reddish-brown.

SKIN: *hypersensitivity* (itching; redness; skin rash); pruritus, generalized (itching over the whole body).

GENERALITIES: *blood dyscrasias* (sore throat; unusual bleeding or bruising); *“flu-like” syndrome* (chills; difficult breathing; dizziness; fever; headache; muscle and bone pain; shivering); *hepatitis* (yellow eyes or skin); *hepatitis prodromal symptoms* (loss of appetite; nausea or vomiting; unusual tiredness or weakness); *fungal overgrowth* (sore mouth or tongue); *hemolysis, acute, increased chance of*; death; Redman syndrome (red-orange discoloration of skin, mucous membranes, and sclera).

DIAGNOSTIC TESTS: discoloration of urine, reddish-orange to reddish-brown; hemolysis, acute, increased chance of.

Rifampin and Isoniazid (Systemic)

Commercial name(s): *Rifamate*.

Category: Antibacterial (antimycobacterial).

Conventional indications: Tuberculosis (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: discoloration of tears, reddish-orange to reddish-brown; *neuritis, optic* (blurred vision or loss of vision, with or without eye pain).

FACE: edema, periorbital or facial (swelling around the eyes or the whole face).

MOUTH: discoloration of saliva or sputum, reddish-orange to reddish-brown.

THROAT: discoloration of saliva or sputum, reddish-orange to reddish-brown.

STOMACH: disturbances, gastrointestinal (diarrhea; nausea and vomiting; stomach pain).

ABDOMEN: disturbances, gastrointestinal (diarrhea; nausea and vomiting; stomach pain).

STOOL: discoloration of feces, reddish-orange to reddish-brown.

KIDNEYS: *failure, renal, increased chance of; nephritis, interstitial* (bloody or cloudy urine; greatly decreased frequency of urination or amount of urine).

URINE: discoloration of urine, reddish-orange to reddish-brown; glycosuria; ketonuria.

EXTREMITIES: *neuritis, peripheral* (clumsiness or unsteadiness; numbness, tingling, burning, or pain in hands and feet); pruritus, generalized (itching over the whole body).

PERSPIRATION: discoloration of sweat, reddish-orange to reddish-brown.

SKIN: *hypersensitivity* (itching; redness; skin rash).

GENERALITIES: *hepatitis* (dark urine; yellow eyes or skin); **hepatitis prodromal symptoms** (loss of appetite; nausea and vomiting; unusual tiredness or weakness); *“flu-like” syndrome* (chills; difficulty in breathing; dizziness; fever; headache; muscle and bone pain; shivering); *fungal overgrowth* (sore mouth or tongue); *blood dyscrasias* (sore throat; unusual bleeding or bruising); *hemolysis, acute, increased chance of; neurotoxicity* (seizures, mental depression, mood or other mental changes; dizziness; slurred speech; lethargy; disorientation; hyperreflexia; coma); *pyridoxine deficiency*; acidosis, metabolic; hyperglycemia; Redman syndrome (red-orange discoloration of skin, mucous membranes, and sclera).

DIAGNOSTIC TESTS: discoloration of urine, reddish-orange to reddish-brown; *hemolysis, acute, increased chance of; pyridoxine deficiency*; acidosis, metabolic; glycosuria; ketonuria.

Rifampin, Isoniazid, and Pyrazinamide (Systemic)

Commercial name(s): *Rifater*.

Category: Antibacterial (antimycobacterial).

Conventional indications: Tuberculosis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: obtundation, mental (mental changes).

EYE: discoloration of tears, reddish-orange to reddish-brown; *neuritis, optic* (blurred vision or loss of vision, with or without eye pain).

FACE: edema, periorbital or facial (swelling around the eyes or the whole face).

MOUTH: discoloration of saliva or sputum, reddish-orange to reddish-brown.

THROAT: discoloration of saliva or sputum, reddish-orange to reddish-brown.

STOMACH: disturbances, gastrointestinal (diarrhea; nausea and vomiting; stomach pain).

ABDOMEN: disturbances, gastrointestinal (diarrhea; nausea and vomiting; stomach pain).

STOOL: discoloration of feces, reddish-orange to reddish-brown.

KIDNEYS: *failure, renal, increased chance of; nephritis, interstitial* (bloody or cloudy urine; greatly decreased frequency of urination or amount of urine).

URINE: discoloration of urine, reddish-orange to reddish-brown; glycosuria; ketonuria.

EXTREMITIES: arthralgia (pain in the large and small joints); neuritis, peripheral (clumsiness or unsteadiness; numbness, tingling, burning, or pain in hands and feet).

PERSPIRATION: discoloration of sweat, reddish-orange to reddish-brown.

SKIN: *hypersensitivity* (itching; redness; skin rash); pruritus, generalized (itching over the whole body).

GENERALITIES: arthralgia (pain in the large and small joints); hepatitis (dark urine; yellow eyes or skin); hepatitis prodromal symptoms (loss of appetite; nausea and vomiting; unusual tiredness or weakness); *“flu-like” syndrome* (chills; difficulty in breathing; dizziness; fever; headache; muscle and bone pain; shivering); *fungal overgrowth* (sore mouth or tongue); *blood dyscrasias* (sore throat; unusual bleeding or bruising); *hemolysis, acute, increased chance of; hyperuricemia; neurotoxicity* (seizures; mental depression; mood or other mental changes; coma; disorientation; dizziness; hyperreflexia; lethargy; slurred speech); acidosis, metabolic; hyperglycemia; Redman syndrome (red-orange discoloration of skin, mucous membranes, and sclera).

DIAGNOSTIC TESTS: discoloration of urine, reddish-orange to reddish-brown; *hemolysis, acute, increased chance of; hyperuricemia; pyridoxine deficiency*; acidosis, metabolic; glycosuria; hyperglycemia; ketonuria.

Rifapentine (Systemic)

Commercial name(s): *Priftin*.

Category: Antibacterial (antimycobacterial).

Conventional indications: Tuberculosis, pulmonary (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *mood or behavior changes* (aggressive reaction).

EYE: discoloration of tears, reddish-orange to reddish-brown.

MOUTH: discoloration of saliva or sputum, reddish-orange to reddish-brown.

THROAT: discoloration of saliva or sputum, reddish-orange to reddish-brown.

STOMACH: *anorexia* (loss of appetite); *nausea*; *vomiting*.

ABDOMEN: *pancreatitis* (nausea; severe abdominal or stomach pain; vomiting); *colitis*, *pseudomembranous*.

RECTUM: *constipation*; *diarrhea*.

STOOL: discoloration of feces, reddish-orange to reddish-brown.

URINE: discoloration of urine, reddish-orange to reddish-brown; **hematuria** (blood in urine); **pyuria** (blood in urine); **proteinuria** (blood in urine).

EXTREMITIES: *arthralgia* (joint pain).

PERSPIRATION: discoloration of sweat, reddish-orange to reddish-brown.

SKIN: *acne*.

GENERALITIES: **hyperuricemia** (joint pain; lower back or side pain; swelling of feet or lower legs); *anemia* (unusual tiredness or weakness); *arthralgia* (joint pain); *fatigue* (unusual tiredness); *hepatitis* (yellow eyes or skin); *leukopenia* (sore throat and fever); *neutropenia* (sore throat and fever); *thrombocytopenia* (black, tarry stools; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *hypertension* (dizziness; severe or continuing headaches; increase in blood pressure)

DIAGNOSTIC TESTS: discoloration of urine, reddish-orange to reddish-brown; **hematuria**; **hyperuricemia** ; **pyuria**; **proteinuria**; *anemia*; *leukopenia*; *neutropenia*; *thrombocytopenia*.

Rifaximin (Oral-Local)

Commercial name(s): *Xifaxan*.

Category: Antidiarrheal; Antibacterial (non-systemic).

Conventional indications: Diarrhea (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

EYE: *edema, angioneurotic* (large, hive-like swelling on eyelids).

FACE: *edema, angioneurotic* (large, hive-like swelling on face, lips).

MOUTH: *edema, angioneurotic* (large, hive-like swelling on tongue).

THROAT: *edema, angioneurotic* (large, hive-like swelling on throat).

STOMACH: *vomiting*.

RECTUM: *constipation* (difficulty having a bowel movement [stool]).

GENITALIA MALE: *edema, angioneurotic* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *edema, angioneurotic* (large, hive-like swelling on sex organs).

EXTREMITIES: *edema, angioneurotic* (large, hive-like swelling on hands, legs, feet).

SKIN: *dermatitis, allergic* (skin rash, hives, itching, or redness); *pruritus* (itching skin); *rash*; *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *hypersensitivity reactions* (allergic dermatitis, angioneurotic edema, pruritus, rash, urticaria).

Riluzole (Systemic)

Commercial name(s): *Rilutek*.

Category: Amyotrophic lateral sclerosis (ALS) therapy agent.

Conventional indications: Amyotrophic lateral sclerosis (ALS) (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental*.

VERTIGO: *dizziness; vertigo*.

HEAD: *alopecia* (hair loss); *headache*.

EYE: *angioedema* (swelling of the eyelids).

NOSE: *rhinitis* (runny nose).

FACE: *paresthesia, circumoral* (numbness or tingling around the mouth); *angioedema* (swelling of the lips); *edema, facial* (swelling of face).

MOUTH: *stomatitis* (irritation or soreness of mouth); *angioedema* (swelling of the mouth, tongue).

THROAT: *angioedema* (swelling of the throat); *dysphagia* (trouble in swallowing).

STOMACH: *anorexia* (loss of appetite); *nausea; vomiting*.

ABDOMEN: *gas; pain, abdominal*.

RECTUM: *diarrhea; constipation*.

BLADDER: *dysuria* (painful or difficult urination); *infections, urinary tract* (bloody or cloudy urine; frequent urge to urinate).

KIDNEYS: *infections, urinary tract* (bloody or cloudy urine; frequent urge to urinate).

RESPIRATION: *lung function, decreased* (difficulty in breathing); *pneumonia*.

COUGH: *cough, increased*.

CHEST: *lung function, decreased* (difficulty in breathing); *pneumonia; tachycardia* (fast or pounding heartbeat).

BACK: *pain, back*.

EXTREMITIES: *pain, muscle; stiffness, muscle; edema, peripheral* (swelling of feet or legs); *incoordination* (lack of coordination).

SLEEP: *somnolence* (drowsiness); *insomnia* (trouble in sleeping).

SKIN: *alopecia* (hair loss); *eczema* (skin rash); *pruritus* (itching); *dermatitis, exfoliative* (redness, scaling, or peeling of the skin).

GENERALITIES: *alopecia* (hair loss); *malaise* (general feeling of discomfort or illness); *pain, muscle; stiffness, muscle; hypertension, mild to moderate* (high blood pressure); *hypokalemia* (increased thirst; irregular heartbeat; mood or mental changes; muscle cramps, pain, or weakness); *hyponatremia* (lack of energy); *jaundice* (yellow eyes or skin); *neutropenia* (fever; chills; continuing sores in mouth); *phlebitis* (pain, tenderness, bluish color, or swelling of foot or leg); *seizures; tachycardia* (fast or pounding heartbeat).

DIAGNOSTIC TESTS: *hypokalemia; hyponatremia; neutropenia*.

Secondary Actions or Rebound Effects: *aggravation reaction* (worsening of symptoms of ALS); *asthenia, worsening of* (unusual tiredness or weakness); *spasticity*.

Rimantadine (Systemic)

Commercial name(s): *Flumadine*.

Category: Antiviral (systemic).

Conventional indications: Influenza A (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

MIND: concentrating, difficulty in; nervousness.

VERTIGO: dizziness.

HEAD: headache.

STOMACH: disturbances, gastrointestinal (dryness of mouth; loss of appetite; nausea; stomach pain; vomiting).

ABDOMEN: disturbances, gastrointestinal (dryness of mouth; loss of appetite; nausea; stomach pain; vomiting).

SLEEP: sleeping, difficulty in.

GENERALITIES: CNS effects (difficulty in concentrating; difficulty in sleeping; dizziness; headache; nervousness; unusual tiredness); tiredness, unusual.

Rimexolone (Ophthalmic)

Commercial name(s): *Vexol*.

Category: Corticosteroid (ophthalmic); Anti-inflammatory (steroidal), ophthalmic.

Conventional indications: Inflammation, postoperative (treatment); Uveitis, anterior (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

EYE: browache; crusting, lid margin (crusting in corner of eye); discharge; discomfort; dryness; edema, conjunctival (swelling of the lining of the eyelids); edema, corneal (blurred vision or other change in vision); erosion, corneal (blurred vision or other change in vision); hyperemia (eye redness); infiltrate (eye redness, irritation, or pain); irritation; keratitis (eye redness, irritation, or pain); pain, eye; photophobia (increased sensitivity of eyes to light); pressure, intraocular, increased; sensation, foreign body (feeling of something in the eye); sensation of eyelids, sticky; staining, corneal (blurred vision or other change in vision); tearing; ulcer, corneal (blurred vision or other change in vision); cataract formation, posterior subcapsular (prolonged use); damage to the optic nerve (prolonged use); glaucoma (prolonged use); hypertension, ocular (prolonged use); infections of the cornea, fungal; infections, secondary ocular (including herpes simplex, due to suppression of host response) (prolonged use).

VISION: blurred vision; defects in visual acuity and visual fields (prolonged use).

NOSE: rhinitis (stuffy or runny nose).

MOUTH: taste perversion (change in taste).

THROAT: pharyngitis (sore throat).

SKIN: pruritus (itching).

GENERALITIES: *hypotension* (unusual tiredness or weakness; dizziness, lightheadness, or faintness).

Secondary Actions or Rebound Effects: *fibrin, increased.*

Risedronate (Systemic)

Commercial name(s): *Actonel.*

Category: Bone resorption inhibitor.

Conventional indications: Osteoporosis, glucocorticoid-induced (prophylaxis and treatment); Osteoporosis, postmenopausal (prophylaxis); Osteoporosis, postmenopausal (treatment); Paget's disease of bone (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety* (fear; nervousness).

VERTIGO: *dizziness*; *syncope* (fainting).

HEAD: *headache.*

EYE: *dryness*; *angioedema* (large, hive-like swelling on eyelids); *iritis, acute* (red, sore eyes).

VISION: *amblyopia* (blurred vision or a change in vision).

HEARING: *tinnitus* (ringing in the ears).

NOSE: *sinusitis* (headache).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue); *glossitis* (redness, swelling, or soreness of tongue).

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); *angioedema* (large, hive-like swelling on throat); *dysphagia*; *esophagitis* (belching); *ulcers, esophageal.*

STOMACH: *pain*; *belching*; *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); *nausea*; *gastrointestinal disorder* (diarrhea; loss of appetite; nausea or vomiting; stomach pain, fullness, or discomfort; indigestion; passing of gas); *ulcer, gastric*; *vomiting.*

ABDOMEN: *pain, abdominal*; *colitis* (abdominal or stomach pain, severe; cramping); *duodenitis* (abdominal discomfort); *gastrointestinal disorder* (diarrhea; loss of appetite; nausea or vomiting; stomach pain, fullness, or discomfort; indigestion; passing of gas).

RECTUM: *diarrhea*; *constipation.*

BLADDER: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: *bronchitis* (cough); *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

CHEST: *bronchitis* (cough); *pain, chest*; *pneumonia* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

BACK: *pain, back*.

EXTREMITIES: *exostosis* (bone growth); *arthralgia* (joint pain); *cramps, leg*; *edema, peripheral* (swelling of feet or lower legs); *joint disorder* (difficulty in moving; muscle pain or stiffness; pain, swelling, or redness in joints); *myasthenia* (weakness); *pain, bone*; *angioedema* (large, hive-like swelling on hands, legs, feet); *bursitis* (pain and inflammation at the joints); *pain, muscle*.

SKIN: *pruritus* (itching skin); *skin reactions, bullous* (skin blisters); *rash, generalized*.

GENERALITIES: *exostosis* (bone growth); *arthralgia* (joint pain); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *asthenia* (weakness); *flu-like syndrome* (fever; general feeling of discomfort or illness); *hypertension* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); *joint disorder* (difficulty in moving; muscle pain or stiffness; pain, swelling, or redness in joints); *myasthenia* (weakness); *pain, bone*; *sinusitis* (headache); *anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); *bursitis* (pain and inflammation at the joints); *neoplasm* (tumor); *pain, muscle*.

DIAGNOSTIC TESTS: *anemia*; *serum calcium, decreases in* (including signs and symptoms of hypocalcemia).

Risperidone (Systemic)

Commercial name(s): *Risperdal*; *Risperdal M-Tab*.

Category: Antipsychotic.

Conventional indications: Psychotic disorders (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **agitation**; **akathisia** (restlessness or need to keep moving); **anxiety**; **behavior, aggressive**; **concentration, difficulty in**; **memory problems**; **mood or mental changes**; **nervousness**; *mania or hypomania* (talking, feeling, and acting with excitement and activity that cannot be controlled).

VERTIGO: **balance control, loss of**; **dizziness**; *dizziness, orthostatic*; *hypotension, orthostatic* (dizziness or lightheadedness).

HEAD: **headache**; *seborrhea* (dandruff; oily skin); *stroke* (sudden weakness or numbness in the face, arms or legs; speech or vision problems).

EYE: **inability to move eyes**; *angioedema* (large, hive-like swelling on eyelids).

VISION: **changes in vision** (disturbances of accommodation and blurred vision).

NOSE: **rhinitis** (stuffy or runny nose); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

FACE: **mask-like face**; **spasms, muscle, of face**; *angioedema* (large, hive-like swelling on face, lips).

MOUTH: difficulty in speaking; dryness; salivation, decreased; salivation, increased (increased watering of mouth); *angioedema* (large, hive-like swelling on tongue)

TEETH: toothache

THROAT: difficulty in swallowing; pharyngitis (sore throat); *angioedema* (large, hive-like swelling on throat).

EXTERNAL THROAT: spasms, muscle, of neck.

STOMACH: dyspepsia (heartburn); **nausea; vomiting; anorexia** (loss of appetite); *polydipsia* (extreme thirst).

ABDOMEN: pain, abdominal; obstruction, intestinal (abdominal pain; severe constipation; nausea; vomiting); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: constipation; diarrhea.

BLADDER: micturition disturbances (problems in); **polyuria** (increase in amount of urine).

GENITALIA MALE: libido, decreased (decreased sexual performance or desire); **sexual dysfunction** (decreased sexual performance or desire); *angioedema* (large, hive-like swelling on sex organs); *priapism* (prolonged, painful, inappropriate erection of the penis).

GENITALIA FEMALE: dysmenorrhea (menstrual changes); **libido, decreased** (decreased sexual performance or desire); **menorrhagia** (menstrual changes); **sexual dysfunction** (decreased sexual performance or desire); amenorrhea (menstrual changes); *angioedema* (large, hive-like swelling on sex organs); *prolactin concentrations, increased*.

RESPIRATION: dyspnea (trouble in breathing); infection, upper respiratory (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *apnea* (bluish lips or skin; not breathing); *arrest, cardiopulmonary*.

COUGH: cough.

CHEST: galactorrhea (unusual secretion of milk); pain, chest; palpitation (fast or irregular heartbeat); tachycardia (fast heartbeat); tachycardia, reflex; *arrest, cardiopulmonary*; *embolism, pulmonary* (anxiety; chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness); *fibrillation, atrial* (fast or irregular heartbeat; dizziness; fainting); *prolactin concentrations, increased*.

BACK: spasms, muscle, of back; pain, back

EXTREMITIES: akathisia (restlessness or need to keep moving); **movements, tic-like or twitching; movements of body, twisting; shuffling walk; stiffness of arms or legs; trembling and shaking of hands and fingers; weakness of arms and legs; arthralgia** (joint pain); *angioedema* (large, hive-like swelling on hands, legs, feet).

SLEEP: drowsiness; duration of sleep, increased; insomnia (trouble in sleeping); **somnolence** (sleepiness or unusual drowsiness).

DREAMS: dream activity, increased.

FEVER: hyperthermia (dizziness; fast, shallow breathing; fast, weak heartbeat; headache; muscle cramps; pale, clammy skin; thirst); *hypothermia* (confusion; drowsiness; poor coordination; shivering).

PERSPIRATION: sweating, increased.

SKIN: **itching; rash;** *dryness*; *photosensitivity* (increased sensitivity of the skin to sun); *pigmentation, increased* (darkening of skin color); *seborrhea* (dandruff; oily skin); *purpura, thrombocytopenic* (unusual bleeding or bruising).

GENERALITIES: **asthenia** (unusual tiredness or weakness); **extrapyramidal effects, dystonic** (muscle spasms of face, neck and back; tic-like or twitching movements; twisting movements of body; inability to move eyes; weakness of arms and legs); **extrapyramidal effects, parkinsonian** (difficulty in speaking or swallowing; loss of balance control; mask-like face; shuffling walk; stiffness of arms or legs; trembling and shaking of hands and fingers); **fatigue** (unusual tiredness or weakness); **lassitude** (unusual tiredness or weakness); **movements, tic-like or twitching; movements of body, twisting; shuffling walk; weight gain;** *arthralgia* (joint pain); *hypotension; hypotension, orthostatic* (dizziness or lightheadedness); *infection, upper respiratory* (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *ischemic attacks, transient* (sudden weakness or numbness in the face, arms or legs; speech or vision problems); *palpitation* (fast or irregular heartbeat); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *tachycardia* (fast heartbeat); *tachycardia, reflex; weight loss; anaphylactic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *death, sudden; diabetes mellitus, aggravation of; fibrillation, atrial* (fast or irregular heartbeat; dizziness; fainting); *hyperglycemia* (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); *hyperkinesia* (increase in body movements); *hyperthermia* (dizziness; fast, shallow breathing; fast, weak heartbeat; headache; muscle cramps; pale, clammy skin; thirst); *hypothermia* (confusion; drowsiness; poor coordination; shivering); *jaundice* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *ketoacidosis, diabetic* (blurred vision; confusion; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; loss of consciousness; nausea; stomachache; sweating; troubled breathing; unexplained weight loss; vomiting); *neuroleptic malignant syndrome (NMS)* (difficult or unusually fast breathing; fast heartbeat or irregular pulse; high fever; high or low [irregular] blood pressure; increased sweating; loss of bladder control; severe muscle stiffness; seizures; unusually pale skin; unusual tiredness or weakness); *Parkinson's disease, aggravation of; prolactin concentrations, increased; purpura, thrombocytopenic* (unusual bleeding or bruising); *seizures* (convulsions).

DIAGNOSTIC TESTS: *electrocardiogram (ECG) abnormalities, especially prolonged QT interval; electrolyte disturbances; hyperglycemia* (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); *ketoacidosis, diabetic* (blurred vision; confusion; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; loss

of consciousness; nausea; stomachache; sweating; troubled breathing; unexplained weight loss; vomiting); *prolactin concentrations, increased*.

Secondary Actions or Rebound Effects: *dyskinesia, withdrawal emergent* (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs); *tardive dyskinesia* (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs); *tardive dystonia* (increased blinking or spasms of eyelid; unusual facial expressions or body positions; uncontrolled twisting movements of neck, trunk, arms, or legs).

Ritodrine (Systemic)

Commercial name(s): *Yutopar; Yutopar S.R.*

Category: Tocolytic.

Conventional indications: Premature labor (prophylaxis and treatment) [Intravenous ritodrine].

Primary Actions or Pathogenetic Symptoms

MIND: *psychological symptoms* (anxiety, emotional upset, jitteriness, nervousness, restlessness); nervousness.

VERTIGO: **blood pressure, diastolic, maternal, reduction** (lightheadedness or dizziness).

HEAD: headache.

STOMACH: nausea; vomiting.

ABDOMEN: *impairment, hepatic function* (yellow eyes or skin).

GENITALIA FEMALE: *inhibition of labor, slow down or halt the contractions of the uterus*.

RESPIRATION: *shortness of breath*

CHEST: **angina, previously undiagnosed** (chest pain or tightness); **arrhythmias, cardiac, maternal and fetal** (fast or irregular heartbeat); **cardiac disease, previously undiagnosed** (chest pain or tightness); **edema, pulmonary** (shortness of breath); **palpitations** (pounding or racing heartbeat); **tachycardia, maternal and fetal** (fast or irregular heartbeat); *cardiopulmonary disease, unrecognized; heart rate, maternal, small increase in* [Oral administration].

SKIN: **erythema** (reddened skin); *rash*.

GENERALITIES: **arrhythmias, cardiac, maternal and fetal** (fast or irregular heartbeat); **blood pressure, diastolic, maternal, reduction** (lightheadedness or dizziness); **hyperglycemia, maternal** (blurred vision; drowsiness; dry mouth; flushed, dry skin; fruit-like breath odor; increased frequency and volume of urination; ketones in urine; loss of appetite; somnolence; stomachache, nausea, or vomiting; tiredness; troubled breathing, rapid and deep; unconsciousness; unusual thirst); **palpitations** (pounding or racing heartbeat); **tachycardia, maternal and fetal** (fast or irregular heartbeat); **trembling; agranulocytosis** (sore throat or fever); *death, maternal; heart rate, maternal, small increase*

in [Oral administration]; *hepatitis* (yellow eyes or skin); *ketoacidosis, maternal*; *leukopenia* (sore throat or fever); *stimulation, beta-adrenergic*.

DIAGNOSTIC TESTS: *agranulocytosis* (sore throat or fever); *ketoacidosis, maternal*; *leukopenia* (sore throat or fever).

Ritonavir (Systemic)

Commercial name(s): *Norvir*; *Norvir SEC*.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus (HIV) infection (treatment); Immunodeficiency syndrome, acquired (AIDS) (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety* (fear, nervousness); *confusion* (mood or mental changes); *depression* (discouragement, feeling sad or empty, irritability, lack of appetite, loss of interest or pleasure, tiredness, trouble concentrating, trouble sleeping); *thinking, abnormal* (confusion, delusions, dementia).

VERTIGO: *dizziness*; *syncope* (fainting); *hypotension, orthostatic*.

HEAD: *headache*.

FACE: *paresthesia, circumoral* (burning, crawling, itching, numbness, prickling, pins and needles, or tingling feelings).

MOUTH: *taste perversion* (change in sense of taste).

THROAT: *irritation, throat*; *pharyngitis* (body aches or pain, congestion, cough, dryness or soreness of throat, fever, hoarseness, runny nose, tender, swollen glands in neck, trouble in swallowing voice changes).

STOMACH: *anorexia* (loss of appetite, weight loss); *dyspepsia* (acid or sour stomach, belching, heartburn, indigestion, stomach discomfort, upset, or pain); **nausea; vomiting**

ABDOMEN: **pain, abdominal**; *flatulence* (bloated full feeling, excess air or gas in stomach or intestines, passing gas); *pancreatitis* (nausea, vomiting, abdominal pain; abnormalities in lab values [such as increased serum lipase or amylase values]).

RECTUM: **diarrhea**; *constipation* (rebound effect?).

BLADDER: *nocturia* (waking to urinate at night, increased urge to urinate during the night).

KIDNEYS: *insufficiency, renal*; failure, renal, with eosinophilia.

EXTREMITIES: **paresthesia, peripheral** (burning, crawling, itching, numbness, prickling, pins and needles, or tingling feelings); *arthralgia* (pain in joints, muscle pain or stiffness, difficulty in moving); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving).

SLEEP: **insomnia** (sleeplessness, trouble sleeping, unable to sleep); **somnolence** (sleepiness or unusual drowsiness).

FEVER: **fever**.

PERSPIRATION: *sweating*.

SKIN: *rash*.

GENERALITIES: **asthenia** (generalized weakness); *arthralgia* (pain in joints, muscle pain or stiffness, difficulty in moving); *malaise* (general feeling of discomfort or illness, unusual tiredness or weakness); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *pain, unspecified*; *vasodilation* (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or light-headedness; sweating); *weight loss*; *allergic reactions* (angioedema, bronchospasm, mild skin eruptions, and urticaria); *anaphylaxis*; *body fat, redistribution or accumulation of* (central obesity, dorsocervical fat enlargement (buffalo hump), peripheral wasting, breast enlargement, and “cushingoid appearance”); *dehydration* (confusion; decreased urination; dizziness; dry mouth; fainting; increase in heart rate; lightheadedness; rapid breathing; sunken eyes; thirst; unusual tiredness or weakness; wrinkled skin); *diabetes* (dry or itchy skin; fatigue; hunger, increased; thirst, increased; unexplained weight loss; urination, increased); *hyperglycemia* (dry or itchy skin; fatigue; hunger, increased; thirst, increased; unexplained weight loss; urination, increased); *hypertriglyceridemia*; *hypotension, orthostatic*; *ketoacidosis* (confusion; dehydration; mouth odor, fruity; nausea; vomiting; weight loss); *seizures* (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); *Stevens-Johnson syndrome*; death; eosinophilia with renal failure.

DIAGNOSTIC TESTS: *hyperglycemia*; *hypertriglyceridemia*; *ketoacidosis*; eosinophilia with renal failure; increased serum lipase or amylase.

Rituximab (Systemic)

Commercial name(s): *Rituxan*.

Category: Monoclonal antibody; Antineoplastic.

Conventional indications: Lymphomas, non-Hodgkin’s (treatment); Leukemia, chronic lymphocytic (treatment); Waldenstrom’s macroglobulinemia (treatment); Thrombocytopenic purpura, immune or idiopathic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety** (fear, nervousness); *agitation*; *depression* (discouragement, feeling sad or empty, irritability, lack of appetite, loss of interest or pleasure, tiredness, trouble concentrating, trouble sleeping); *nervousness*.

VERTIGO: **dizziness**; *vertigo* (dizziness or lightheadedness; feeling of constant movement of self or surroundings, sensation of spinning).

HEAD: **headache**.

EYE: *conjunctivitis* (red, itchy lining of eye); *lacrimation disorder* (dry eyes); *herpes simplex virus* (burning or stinging of skin; painful cold sores or blisters on eyes); *neuritis, optic* (blindness; blue-yellow color blindness; blurred vision; decreased vision; eye pain); *uveitis* (eye pain, tearing; sensitivity of eye to light; redness of eye, or blurred vision or other change in vision).

NOSE: **rhinitis** (runny nose); **sinusitis** (pain or tenderness around eyes and cheekbones, fever, stuffy or runny nose, headache, cough, shortness of breath or troubled breathing,

tightness of chest or wheezing); *herpes simplex virus* (burning or stinging of skin; painful cold sores or blisters on nose).

FACE: flushing; *neuritis* (numbness or tingling of face); *herpes simplex virus* (burning or stinging of skin; painful cold sores or blisters on lips).

MOUTH: angioedema (feeling of swelling of tongue); *taste, change in.*

THROAT: angioedema (feeling of swelling of throat); **irritation.**

STOMACH: nausea; vomiting; *anorexia* (loss of appetite); *appetite, loss of; dyspepsia* (heartburn).

ABDOMEN: obstruction and perforation, bowel (abdominal or stomach cramps or pain; black, tarry stools; diarrhea; fever; severe vomiting, sometimes with blood); *pain, abdominal* (stomach pain).

RECTUM: diarrhea.

KIDNEYS: failure, renal, acute (lower back or side pain; decreased frequency or amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure).

GENTALIA MALE: herpes simplex virus (burning or stinging of skin; painful cold sores or blisters on genitals).

GENTALIA FEMALE: herpes simplex virus (burning or stinging of skin; painful cold sores or blisters on genitals).

RESPIRATION: bronchospasm (shortness of breath); **dyspnea** (shortness of breath); *asthma; respiratory distress syndrome, acute.*

COUGH: cough, increased.

CHEST: bronchospasm (shortness of breath); **pleuritis** (chest pain; chills and fever; dry cough; troubled breathing); *angina* (chest pain); *arrhythmias, cardiac; asthma; bradycardia; bronchiolitis obliterans; failure, cardiac, fatal, with symptomatic onset; fibrillation, ventricular; infarction, myocardial; infiltrates, pulmonary; pneumonitis, acute; pulse, irregular* (irregular heartbeat); *shock, cardiogenic; tachycardia, ventricular or supraventricular; trigeminy.*

BACK: pain, back

EXTREMITIES: arthralgia (pain in joints, muscle pain or stiffness, difficulty in moving); **edema, peripheral** (bloating or swelling of face, arms, hands, lower legs, or feet, rapid weight gain, tingling of hands or feet, unusual weight gain or loss); **myalgia** (joint pain, swollen joints, muscle aching or cramping, muscle pains or stiffness, difficulty in moving); *arthritis* (pain, swelling, or redness in joints, muscle pain or stiffness, difficulty in moving); *hypertonia* (excessive muscle tone, muscle tension or tightness, muscle stiffness); *neuritis* (numbness or tingling of hands, feet); *neuropathy* (burning, tingling, numbness or pain in the hands, arms, feet, or legs, sensation of pins and needles, stabbing pain); *pemphigus, paraneoplastic* (blisters in the mouth; blisters on the trunk, scalp, or other areas; itching); *arthritis, polyarticular* (pain in many joints; swelling, stiffness redness, or warmth around many joints)

SLEEP: insomnia (trouble in sleeping); *somnolence* (sleepiness or unusual drowsiness)

CHILL: fever and chills

FEVER: fever and chills

PERSPIRATION: night sweats

SKIN: **pruritus** (itching); **rash**; **urticaria** (skin rash); dermatitis, lichenoid or vesiculobullous; necrolysis, toxic epidermal (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); pemphigus, paraneoplastic (blisters in the mouth; blisters on the trunk, scalp, or other areas; itching); herpes simplex virus (burning or stinging of skin; painful cold sores or blisters on lips, nose, eyes, or genitals); vasculitis with rash (redness, soreness or itching skin; fever; sores, welting or blisters)

GENERALITIES: **anemia** (pale skin, troubled breathing with exertion, unusual bleeding or bruising, unusual tiredness or weakness); **arthralgia** (pain in joints, muscle pain or stiffness, difficulty in moving); **asthenia** (lack or loss of strength); **edema, peripheral** (bloating or swelling of face, arms, hands, lower legs, or feet, rapid weight gain, tingling of hands or feet, unusual weight gain or loss); **fatigue** (unusual tiredness); **hyperglycemia** (abdominal pain, blurred vision, dry mouth, fatigue, flushed, dry skin, fruit-like breath odor, increased hunger, increased thirst, increased urination, nausea, sweating, troubled breathing, unexplained weight); **hypertension** (blurred vision, dizziness, nervousness, headache, pounding in the ears, slow or fast heartbeat); **hypotension** (dizziness); **infection** (fever or chills, cough or hoarseness lower back or side pain, painful or difficult urination); **infusion-related reaction** (angioedema; bronchospasm; dyspnea; fatigue; fever and chills; flushing of face; headache; hypotension; nausea; pruritus (itching); rhinitis; urticaria; vomiting); **leukopenia** (black, tarry stools, chest pain, chills, cough, fever, painful or difficult urination, shortness of breath, sore throat, sores, ulcers, or white spots on lips or in mouth, swollen glands, unusual bleeding or bruising, unusual tiredness or weakness); **lymphopenia** (fever or chills, cough or hoarseness, lower back or side pain, painful or difficult urination); **myalgia** (joint pain, swollen joints, muscle aching or cramping, muscle pains or stiffness, difficulty in moving); **neutropenia** (black, tarry, stools, chills, cough, fever, lower back or side pain, painful or difficult urination, pale skin, shortness of breath, sore throat, ulcers, sores, or white spots in mouth, unusual bleeding or bruising, unusual tiredness or weakness); **pain**; **sinusitis** (pain or tenderness around eyes and cheekbones, fever, stuffy or runny nose, headache, cough, shortness of breath or troubled breathing, tightness of chest or wheezing); **thrombocytopenia** (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); arthritis (pain, swelling, or redness in joints, muscle pain or stiffness, difficulty in moving); hyperkinesia (increase in body movements); hypertonia (excessive muscle tone, muscle tension or tightness, muscle stiffness); hypesthesia (numbness or tingling of hands or feet); malaise (general feeling of discomfort or illness); mucocutaneous reactions, severe (paraneoplastic pemphigus; Stevens-Johnson syndrome; lichenoid dermatitis; vesiculobullous dermatitis; toxic epidermal necrolysis); neuritis (numbness or tingling of hands, feet, or face); neuropathy (burning, tingling, numbness or pain in the hands, arms, feet, or legs, sensation of pins and needles stabbing pain); pain, injection site; paresthesia (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); Stevens-Johnson syndrome (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); tumor lysis syndrome resulting in acute renal failure; weight decrease;

arrhythmias, cardiac; arthritis, polyarticular (pain in many joints; swelling, stiffness, redness, or warmth around many joints); *bradycardia; coagulation disorder; fibrillation, ventricular; herpes simplex virus* (burning or stinging of skin; painful cold sores or blisters on lips, nose, eyes, or genitals); *human antichimeric antibody [HACA], development of* (allergic or hypersensitivity reactions); *hyperviscosity syndrome in Waldenstrom's macroglobulinemia* (fatigue; rash; nosebleeds; weight loss; vision changes); *hypoplasia, bone marrow; infarction, myocardial; infections, bacterial, viral, fungal, or unknown; infections, fatal, increased, in HIV-associated lymphoma* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *infections, viral, new, reactivated or exacerbated* (chills; cough or hoarseness; fever; cold flu-like symptoms); *infections, viral, occurring up to 1 year after discontinuation of Rituximab* (chills; cough or hoarseness; fever; cold flu-like symptoms); *life-threatening (grades 3 and 4) reactions* (abdominal pain, anemia, angioedema, anxiety, arthralgia, arrhythmia, asthenia, asthma, back pain, bronchiolitis obliterans, bronchospasm, chills, coagulation disorder, diarrhea, dizziness, dyspnea, fever, headache, hyperglycemia, hypertension, hypotension, hypoxia, increased cough, infection, leukopenia, lymphopenia, myalgia, nausea, neutropenia, night sweats, pain, pruritus, rhinitis, skin rash, thrombocytopenia, urticaria, and vomiting); *lupus-like syndrome* (fever or chills; general feeling of discomfort, illness, or weakness); *macroglobulinemia* (fatigue; rash; nosebleeds; weight loss; vision changes); *pancytopenia; pulse, irregular* (irregular heartbeat); *respiratory distress syndrome, acute; sepsis; serum sickness* (feeling of discomfort; fever; inflammation of joints; itching; muscle aches; rash; swollen lymph glands); *tachycardia, ventricular or supraventricular; trigeminy; vasculitis, systemic* (severe abdominal pain); *vasculitis with rash* (redness, soreness or itching skin; fever; sores, welting or blisters).

DIAGNOSTIC TESTS: **anemia; hyperglycemia; leukopenia; lymphopenia; neutropenia; thrombocytopenia; B cell depletion; fibrillation, ventricular; macroglobulinemia; pancytopenia; serum immunoglobulins, decrease in; tachycardia, ventricular or supraventricular; hypoplasia, bone marrow.**

Rivastigmine (Systemic)

Commercial name(s): *Exelon*.

Category: Dementia symptoms treatment adjunct.

Conventional indications: Dementia, Alzheimer's type, mild to moderate (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **confusion; depression, mental; hallucinations** (seeing, hearing, or feeling things that are not there); *aggression*.

VERTIGO: **dizziness; syncope** (fainting).

HEAD: **headache.**

NOSE: *rhinitis* (runny nose).

MOUTH: salivation, increased (drooling; watering of mouth).

STOMACH: **anorexia** (loss of appetite); **cramping; dyspepsia** (indigestion); **nausea; pain; vomiting.**

ABDOMEN: cramping, abdominal; **flatulence** (bloated full feeling); **pain, abdominal**
RECTUM: constipation; **diarrhea**.

BLADDER: *obstruction, urinary* (trouble in urinating).

RESPIRATION: depression, respiratory (slow or troubled breathing).

CHEST: bradycardia (slow heart beat).

EXTREMITIES: *tremors* (trembling and shaking of hands and fingers).

SLEEP: **insomnia** (trouble in sleeping).

PERSPIRATION: *sweating increased*.

GENERALITIES: **asthenia** (loss of strength); **fatigue**; **weight loss**; ***hypertension*** (high blood pressure); ***malaise*** (general feeling of discomfort or illness); ***seizures*** (convulsions); bradycardia (slow heart beat); cholinergic crisis (bradycardia; hypotension; increased salivation; increased sweating; respiratory depression; seizures; severe nausea and vomiting); hypotension (low blood pressure; dizziness; fainting).

Rizatriptan (Systemic)

Commercial name(s): *Maxalt, Maxalt-MLT*.

Category: Antimigraine.

Conventional indications: Headache, migraine (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation; anxiety; confusion; depression; euphoria* (unusual feeling of well-being); *irritability*.

VERTIGO: **dizziness**; *vertigo* (feeling of constant movement of self or surroundings); syncope (fainting).

EYE: *dryness; irritation*.

VISION: *blurred vision*.

HEARING: *tinnitus* (ringing or buzzing in ears).

MOUTH: dryness.

THROAT: *dysphagia* (difficulty swallowing).

EXTERNAL THROAT: **heaviness in neck; pressure in neck; tightness in neck**.

STOMACH: **nausea; vomiting**; *dyspepsia* (heartburn); *thirst, increased*.

ABDOMEN: *flatulence* (gas).

RECTUM: *constipation; diarrhea*.

BLADDER: *polyuria* (sudden, large increase in frequency and quantity of urine).

RESPIRATION: **dyspnea** (shortness of breath).

CHEST: **heaviness in chest; pain, chest, severe; palpitations** (pounding heartbeat); **pressure in chest; tightness in chest**; *arrhythmia* (irregular heartbeat); *bradycardia* (slow heartbeat); *tachycardia* (increased heartbeat).

EXTREMITIES: *arthralgia* (joint pain); *pain, muscle; rigidity, muscle or joint; spasms, muscle; stiffness, muscle or joint; tightness, muscle or joint; tremor* (trembling or shaking of hands or feet).

SLEEP: **somnolence** (sleepiness); *insomnia* (inability to sleep).

CHILL: *chills; cold sensations*.

PERSPIRATION: sweating, increased.

SKIN: pruritus (itching of the skin).

GENERALITIES: **asthenia** (unusual tiredness or muscle weakness); **fatigue** (unusual tiredness); **hot flashes**; **palpitations** (pounding heartbeat); **paresthesias** (sensation of burning, warmth, heat, numbness, tightness, or tingling); arrhythmia (irregular heartbeat); arthralgia (joint pain); bradycardia (slow heartbeat); cold sensations; heat sensitivity; hypertension (dizziness; headache, severe or continuing; increased blood pressure); pain, muscle; rigidity, muscle or joint; spasms, muscle; stiffness, muscle or joint; tachycardia (increased heartbeat); tightness, muscle or joint; warm sensations.

Rocuronium (Systemic)

Commercial name(s): *Zemuron.*

Category: Neuromuscular blocking (paralyzing) agent.

Conventional indications: Skeletal muscle paralysis.

Primary Actions or Pathogenetic Symptoms

STOMACH: hiccups; nausea; vomiting.

RESPIRATION: bronchospasm; rhonchi; wheezing; apnea.

CHEST: arrhythmia; bronchospasm; tachycardia.

EXTREMITIES: paralisys (neuromuscular block).

SKIN: pruritus; rash.

GENERALITIES: paralisys (neuromuscular block); **pain on injection**; hypertension; hypotension; arrhythmia; swelling at injection site; tachycardia.

Rofecoxib (Systemic)

Commercial name(s): *Vioxx.*

Category: Antirheumatic (nonsteroidal anti-inflammatory); Analgesic; Antidysmenorrheal.

Conventional indications: Osteoarthritis (treatment); Pain (treatment); Dysmenorrhea (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

VISION: blurred vision.

NOSE: sinusitis (stuffy or runny nose; headache).

STOMACH: heartburn; nausea; pain; bleeding, gastrointestinal (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds); gastritis (burning feeling in chest or stomach; tenderness in the stomach area); gastroenteritis (severe stomach pain; diarrhea; loss of appetite; nausea; weakness); ulceration, gastrointestinal (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds); vomiting.

ABDOMEN: bleeding, gastrointestinal (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds); colitis (bloody diarrhea); gastroenteritis (severe

stomach pain; diarrhea; loss of appetite; nausea; weakness); ulceration, gastrointestinal (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds).

RECTUM: **diarrhea;** bleeding, gastrointestinal (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds); constipation.

RESPIRATION: **bronchitis** (congestion in chest; cough); **infection, upper respiratory tract** (cough; fever; sneezing; sore throat); dyspnea (shortness of breath).

CHEST: **bronchitis** (congestion in chest; cough); **infection, upper respiratory tract** (cough; fever; sneezing; sore throat).

BACK: **pain, back.**

EXTREMITIES: **edema, lower extremity** (swelling of legs and feet).

SKIN: rash; urticaria (hives).

GENERALITIES: analgesia (pain absence); **asthenia** (loss of energy or weakness); **sinusitis** (stuffy or runny nose; headache); influenza-like symptoms (chills; fever; muscle aches and pains); weight gain, unusual.

Ropinirole (Systemic)

Commercial name(s): *Requip*.

Category: Antidyskinetic (dopamine agonist).

Conventional indications: Parkinson's disease, idiopathic (treatment); Restless legs syndrome (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **confusion; hallucinations** (seeing, hearing, or feeling things that are not there); amnesia (loss of memory); concentrating, difficulty in; depression, mental; anxiety; nervousness; agitation; grogginess; sedation.

VERTIGO: **dizziness; falling; hypotension, orthostatic** (dizziness, lightheadedness, or fainting, especially when standing up); **syncope** (fainting); syncope, vasovagal.

HEAD: headache.

EYE: xerophthalmia or other eye problems; degeneration, retinal, in albino rats.

VISION: diplopia or other vision problems.

HEARING: tinnitus (buzzing or ringing in ears).

NOSE: infection, sinus (fever; headache; nasal congestion).

MOUTH: dryness.

THROAT: pharyngitis (sore throat); dysphagia (trouble in swallowing).

STOMACH: **nausea;** anorexia (loss of appetite); heartburn; vomiting.

ABDOMEN: gas; pain, abdominal; fibrosis, retroperitoneal.

RECTUM: constipation; diarrhea.

BLADDER: infection, urinary tract (burning, pain, or difficulty in urinating); incontinence, urinary (loss of bladder control).

KIDNEYS: infection, urinary tract (burning, pain, or difficulty in urinating)

URINE: hematuria (blood in urine).

GENTALIA MALE: impotence (decrease in sexual desire or performance).

RESPIRATION: *bronchitis* (cough; shortness of breath; tightness in chest; wheezing); *dyspnea* (troubled breathing); *infection, upper respiratory* (cough; fever; runny nose; sneezing).

COUGH: coughing, increased.

CHEST: *arrhythmias, cardiac* (irregular or pounding heartbeat); *bronchitis* (cough; shortness of breath; tightness in chest; wheezing); *pain, chest*; *tachycardia* (fast heartbeat); *effusion, pleural*; *infiltrates, pulmonary*; *thickening, pleural*.

EXTREMITIES: **edema, dependent** (swelling of legs); *pain in arms or legs*; *cramps, muscle*; *pain, joint or muscle*; *spasms, muscle*.

SLEEP: **somnolence** (drowsiness); *yawning*.

DREAMS: *abnormal dreams*.

CHILL: *chills*.

FEVER: *fever*.

PERSPIRATION: *sweating, increased*.

SKIN: *flushing*.

GENERALITIES: **asthenia** (unusual tiredness or weakness); **hypotension, orthostatic** (dizziness, lightheadedness, or fainting, especially when standing up); **infection, viral**; *arrhythmias, cardiac* (irregular or pounding heartbeat); *flushing*; *hot flashes*; *hypertension*; *hypotension*; *malaise* (general feeling of discomfort or illness); *pain*; *paresthesia* (tingling, numbness, or prickly feelings); *tachycardia* (fast heartbeat); *tremor*; *weight loss*; *cramps, muscle*; *infection, sinus* (fever; headache; nasal congestion); *infection, upper respiratory* (cough; fever; runny nose; sneezing); *neuroleptic malignant syndrome* (characterized by elevated temperature, muscular rigidity, altered consciousness, and autonomic instability) (in association with rapid dose reduction, withdrawal of, or changes in antiparkinsonian therapy); *pain, joint or muscle*; *spasms, muscle*; dyskinesia, increased, including mild oro-facial dyskinesia; fatigue.

DIAGNOSTIC TESTS: *hematuria*.

Secondary Actions or Rebound Effects: **dyskinesia** (twisting, twitching, or other unusual body movements); **parkinsonism, worsening of**; *symptom complex that resembles dyskinesia*, increased, including mild oro-facial dyskinesia.

Ropivacaine (Parenteral-Local)

Commercial name(s): *Naropin*.

Category: Anesthetic (local).

Conventional indications: Central neural blocks; Local infiltration; Peripheral nerve block.

Primary Actions or Pathogenetic Symptoms

MIND: *anesthesia* (unconsciousness); *anxiety*; *restlessness*; *speech, incoherent*.

VERTIGO: *dizziness*.

HEAD: *headache*.

VISION: *blurred vision*.

FACE: *numbness and tingling of lips.*

MOUTH: *numbness and tingling of mouth; speech, incoherent; taste, metallic.*

STOMACH: *nausea; vomiting.*

BLADDER: *retention, urinary (difficulty urinating).*

RESPIRATION: *apnea (bluish lips or skin).*

CHEST: *bradycardia (dizziness).*

BACK: *pain, back.*

EXTREMITIES: *tremors (trembling); twitching.*

SLEEP: *drowsiness.*

CHILL: *chills.*

FEVER: *fever.*

SKIN: *pruritus (itching).*

GENERALITIES: *anesthesia; hypotension (dizziness); bradycardia (dizziness); pain; paresthesia (burning or prickling sensation); neurotoxicity (nausea; headache; vomiting; blurred vision; chills; dizziness; drowsiness; incoherent speech; metallic taste; numbness and tingling of mouth or lips; restlessness; tremors; twitching); tremors (trembling); twitching; depression, circulatory (dizziness); seizures.*

Rosiglitazone (Systemic)

Commercial name(s): *Avandia.*

Category: *Antidiabetic agent.*

Conventional indications: *Diabetes, type 2 (treatment).*

Primary Actions or Pathogenetic Symptoms

HEAD: *headache.*

EYE: *angioedema (large, hive-like swelling on eyelids).*

NOSE: *sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).*

FACE: *angioedema (large, hive-like swelling on face, lips).*

MOUTH: *angioedema (large, hive-like swelling on tongue).*

THROAT: *angioedema (large, hive-like swelling on throat).*

ABDOMEN: *failure, hepatic (abdominal or stomach pain; dark urine; loss of appetite; nausea; unusual tiredness or weakness; vomiting).*

RECTUM: *diarrhea.*

GENITALIA MALE: *angioedema (large, hive-like swelling on sex organs).*

GENITALIA FEMALE: *angioedema (large, hive-like swelling on sex organs).*

RESPIRATION: *infection, upper respiratory (fever, runny or stuffy nose).*

CHEST: *infection, upper respiratory (fever, runny or stuffy nose); ischemic heart disease (chest pain or discomfort; irregular heartbeat; nausea or vomiting; pain in the shoulders, arms, jaw or neck; sweating); congestive heart failure (edema; shortness of breath; weight gain, rapid or unusual).*

BACK: *pain, back*

EXTREMITIES: *edema, mild* (swelling of hands, ankles, feet, or lower legs); *angioedema* (large, hive-like swelling on hands, legs, feet)

SKIN: *urticaria* (hives or welts, itching, redness of skin, skin rash)

GENERALITIES: **injury;** *anemia* (dizziness, light-headedness); *edema, severe* (decrease in amount of urine; noisy, rattling breathing; shortness of breath; swelling of fingers, hands, feet, or lower legs; troubled breathing at rest; weight gain); *fatigue* (unusual tiredness or weakness); *hyperglycemia* (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); *ischemic heart disease* (chest pain or discomfort; irregular heartbeat; nausea or vomiting; pain in the shoulders, arms, jaw or neck; sweating); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *weight gain*; *fluid retention*; *hypoglycemia* (anxiety; blurred vision; chills; cold sweats; coma; confusion; cool pale skin; depression; dizziness; fast heartbeat; headache; increased hunger; nausea; nervousness; nightmares; seizures; shakiness; slurred speech; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *anemia*; *hyperglycemia*; *hepatic enzyme elevations* (three or more times the upper limit of normal); *hypoglycemia*.

Rosiglitazone and Metformin (Systemic)

Commercial name(s): *Avandamet*.

Category: Antidiabetic agent.

Conventional indications: Diabetes, type 2 (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

EYE: *angioedema* (large, hive-like swelling on eyelids).

NOSE: *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

ABDOMEN: *hepatic effects* (dark urine; loss of appetite; nausea; stomach pain; unusual tiredness or weakness; vomiting; weight loss; hepatitis; jaundice; hepatic enzymes, increased).

RECTUM: diarrhea.

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: **infection, upper respiratory tract** (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

CHEST: infection, upper respiratory tract (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); *failure, cardiac* (chest pain or discomfort; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; weight gain; wheezing); *congestive heart failure* (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing); *edema, pulmonary* (chest pain; difficult, fast, noisy breathing, sometimes with wheezing; blue lips and fingernails; pale skin; increased sweating; coughing that sometimes produces a pink frothy sputum; shortness of breath; swelling in legs and ankles); *effusions, pleural* (chest pain; shortness of breath).

BACK: *pain, back.*

EXTREMITIES: *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *angioedema* (large, hive-like swelling on hands, legs, feet).

SKIN: *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: anemia (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); **fatigue** (unusual tiredness or weakness); **injury; sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *edema* (swelling); *hypoglycemia* (anxiety; blurred vision; chills; cold sweats; coma; confusion; cool pale skin; depression; dizziness; fast heartbeat; headache; increased hunger; nausea; nervousness; nightmares; seizures; shakiness; slurred speech; unusual tiredness or weakness); *infection, viral* (chills; cough or hoarseness; fever; cold flu-like symptoms); *acidosis, lactic* (abdominal discomfort; decreased appetite; diarrhea; fast, shallow breathing; general feeling of discomfort; muscle pain or cramping; nausea; shortness of breath; sleepiness; unusual tiredness or weakness; increasing somnolence; hypothermia, hypotension; resistant bradyarrhythmias); *hepatitis; jaundice; weight gain, excessive.*

DIAGNOSTIC TESTS: anemia; hypoglycemia; hepatic enzymes, increased (ALT greater than 3 times upper limit of normal).

Rosuvastatin (Systemic)

Commercial name(s): *Crestor.*

Category: Antihyperlipidemic; HMG-CoA reductase inhibitor.

Conventional indications: Hyperlipidemia (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety* (fear; nervousness); *depression* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping).

VERTIGO: *dizziness; vertigo* (dizziness or lightheadedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: headache.

NOSE: rhinitis (stuffy nose; runny nose; sneezing); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath).

MOUTH: abscess, periodontal (accumulation of pus, swollen, red, tender area of infection of the gum).

THROAT: pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

EXTERNAL THROAT: pain, neck.

STOMACH: dyspepsia (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); gastritis (burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion); gastroenteritis (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); nausea; pain, abdominal (stomach pain); vomiting.

ABDOMEN: flatulence (bloated; full feeling; excess air or gas in stomach or intestines; passing gas); gastroenteritis (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); pain, abdominal (stomach pain); pain, pelvic.

RECTUM: constipation (difficulty having a bowel movement (stool)); diarrhea.

BLADDER: infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

RESPIRATION: asthma (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); bronchitis (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); dyspnea (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); pneumonia (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

COUGH: cough increased.

CHEST: angina pectoris (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea) (rebound effect?); asthma (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); bronchitis (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); pain, chest; pneumonia (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

BACK: pain, back.

EXTREMITIES: arthralgia (joint pain); arthritis (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); edema, peripheral (swelling of hands, ankles, feet, or lower legs); fracture, pathological (pain or swelling in arms or legs without any injury); hypertonia (excessive muscle tone; muscle tension or tightness; muscle stiffness); myalgia (muscle pain); neuralgia (nerve pain); myopathy (muscular pain, tenderness, wasting or weakness); rhabdomyolysis (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness).

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep).

SKIN: *pruritus* (itching skin); *rash*.

GENERALITIES: *hypolypidemia*; *anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); *arthralgia* (joint pain); *arthritis* (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); *asthenia* (lack or loss of strength); *diabetes mellitus* (blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; loss of consciousness; nausea; stomach ache; sweating; troubled breathing; unexplained weight loss; vomiting); *ecchymosis* (bruising; large, flat, blue or purplish patches in the skin); *flu syndrome* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *fracture, pathological* (pain or swelling in arms or legs without any injury); *hypertension* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); *hypertonia* (excessive muscle tone; muscle tension or tightness; muscle stiffness); *infection* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *injury, accidental*; *jaundice* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *myalgia* (muscle pain); *neuralgia* (nerve pain); *pain*; *palpitation* (fast, irregular, pounding, or racing heartbeat or pulse); *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath); *vasodilation* (feeling of warmth or heat; flushing or redness of skin especially on face and neck; headache; feeling faint; dizzy, or light-headedness; sweating); *myopathy* (muscular pain, tenderness, wasting or weakness); *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *hypolypidemia*; *anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness).

Rubella and Mumps Virus Vaccine Live (Systemic)

Commercial name(s): *BIAVAX II*.

Category: Immunizing agent (active).

Conventional indications: Rubella and mumps (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache, mild*; *encephalitis* (confusion; headache, severe or continuing; irritability; stiff neck; vomiting); *meningoencephalitis* (confusion; headache, severe or continuing; irritability; stiff neck; vomiting).

EYE: *neuritis, optic* (pain or tenderness of eyes).

NOSE: *runny nose*; *excretion of small amounts of the live attenuated rubella virus*.

THROAT: *sore throat*; *excretion of small amounts of the live attenuated rubella virus*.

EXTERNAL THROAT: *parotitis* (swelling of glands in neck).

STOMACH: *nausea.*

GENITALIA MALE: *orchitis in postpubescent and adult males* (pain, tenderness, or swelling in testicles and scrotum).

EXTREMITIES: *arthralgia* (aches or pain in joints); *arthritis* (aches or pain in joints); *neuropathy, peripheral* (pain, numbness, or tingling of hands, arms, legs, or feet); *polyneuritis* (pain, numbness, or tingling of hands, arms, legs, or feet); *polyneuropathy* (pain, numbness, or tingling of hands, arms, legs, or feet).

FEVER: *fever over 39.4° C (103° F).*

SKIN: *rash; purpura, thrombocytopenic* (bruising or purple spots on skin).

GENERALITIES: *lymphadenopathy; reaction to acid pH of vaccine* (burning or stinging at injection site); *allergic reaction, delayed-type, cell-mediated* (itching, swelling, redness, tenderness, or hard lump at place of injection); *arthralgia* (aches or pain in joints); *arthritis* (aches or pain in joints); *malaise* (vague feeling of bodily discomfort); *anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of feet or hands; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *encephalitis* (confusion; headache, severe or continuing; irritability; stiff neck; vomiting); *Guillain-Barré syndrome (GBS)*; *meningoencephalitis* (confusion; headache, severe or continuing; irritability; stiff neck; vomiting); *purpura, thrombocytopenic* (bruising or purple spots on skin).

Rubella Virus Vaccine Live (Systemic)

Commercial name(s): *Meruvax II.*

Category: Immunizing agent (active).

Conventional indications: Rubella (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache, mild; encephalitis* (confusion, convulsions, severe or continuing headache, stiff neck, unusual irritability, or vomiting); *meningoencephalitis* (confusion, convulsions, severe or continuing headache, stiff neck, unusual irritability, or vomiting)

EYE: *neuritis, optic* (pain or tenderness of eyes).

NOSE: *runny nose.*

THROAT: *sore throat.*

EXTERNAL THROAT: *parotitis* (swelling of glands in neck).

STOMACH: *nausea.*

EXTREMITIES: *arthralgia* (aches or pain in joints); *arthritis* (aches or pain in joints); *neuropathy, peripheral* (pain, numbness, or tingling of hands, arms, legs, or feet); *polyneuritis* (pain, numbness, or tingling of hands, arms, legs, or feet); *polyneuropathy* (pain, numbness, or tingling of hands, arms, legs, or feet).

FEVER: *fever.*

SKIN: *rash; purpura, thrombocytopenic* (bruising or purple spots on skin).

GENERALITIES: *lymphadenopathy; reaction due to acid pH of vaccine* (burning or stinging at place of injection); *allergic reaction, delayed-type, cell-mediated* (itching, swelling, redness, tenderness, or hard lump at place of injection); *arthralgia* (aches or pain

in joints); *arthritis* (aches or pain in joints); *malaise* (vague feeling of bodily discomfort); *anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of feet or hands; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *encephalitis* (confusion, convulsions, severe or continuing headache, stiff neck, unusual irritability, or vomiting); *meningoencephalitis* (confusion, convulsions, severe or continuing headache, stiff neck, unusual irritability, or vomiting); *purpura, thrombocytopenic* (bruising or purple spots on skin); *thrombocytopenia, higher risk of*.

DIAGNOSTIC TESTS: *thrombocytopenia, higher risk of*.

Rubidium Rb 82 (Systemic)

Commercial name(s): *CardioGen-82*.

Category: Diagnostic aid, radioactive (cardiac disease).

Conventional indications: Cardiac imaging, positron emission tomographic; Myocardial perfusion imaging, positron emission tomographic; Myocardial infarction (diagnosis); Ischemia, myocardial (diagnosis); Coronary artery disease (diagnosis).

Primary Actions or Pathogenetic Symptoms

There are no known side/adverse effects associated with the use of rubidium Rb 82.

Sacrosidase (Systemic)

Commercial name(s): *Sucraid*.

Category: Enzyme replenisher.

Conventional indications: Sucrase deficiency (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness*.

HEAD: *headache*.

STOMACH: *dehydration* (increased thirst); *nausea*; *pain*; *vomiting*.

ABDOMEN: *pain*, *abdominal*.

RECTUM: *constipation*; *diarrhea*.

RESPIRATION: *hypersensitivity reaction* (wheezing; in a child with a history of asthma).

SLEEP: *insomnia* (trouble in sleeping).

GENERALITIES: *dehydration* (increased thirst); *hypersensitivity reaction* (wheezing; in a child with a history of asthma).

Salicylates (Systemic)

Commercial name(s): 217; 217 Strong; Acuprin 81; Amigesic; Anacin; Anacin Caplets; Anacin Extra Strength; Anacin Maximum Strength; Anacin Tablets; Anaflex 750; Antidol; Apo-ASA; Apo-ASEN; Arco Pain Tablet; Arthrisin; Arthritis Pain Ascriptin; Arthritis Pain Formula; Arthritis Strength Bufferin; Arthropan; Artria S.R; Aspergum; Aspir-Low; Aspirin Caplets; Aspirin Children's Tablets; Aspirin Plus Stomach Guard Extra Strength; Aspirin Plus Stomach Guard Regular Strength; Aspirin Regimen Bayer Adult Low Dose; Aspirin Regimen Bayer Regular Strength Caplets; Aspirin Tablets; Aspirin, Coated; Aspiatab; Aspiatab-Max; Astone; Astrin; Backache Caplets; Bayer Children's Aspirin; Bayer Select Maximum Strength Backache Pain Relief Formula; Bufferin Caplets; Bufferin Extra Strength Caplets; Bufferin Tablets; Buffex; Buffinol; Buffinol Extra; C2; C2 Buffered; CMT; Calmine; Cama Arthritis Pain Reliever; Cope; Coryphen; Disalcid; Doan's Backache Pills; Doan's Regular Strength Tablets; Dodd's Extra Strength; Dodd's Pills; Dolomine; Easprin; Ecotrin Caplets; Ecotrin Tablets; Empirin; Entrophen 10 Super Strength Caplets; Entrophen 15 Maximum Strength Tablets; Entrophen Caplets; Entrophen Extra Strength; Entrophen Tablets; Extended-release Bayer 8-Hour; Extra Strength Bayer Arthritis Pain Formula Caplets; Extra Strength Bayer Aspirin Caplets; Extra Strength Bayer Aspirin Tablets; Extra Strength Bayer Plus Caplets; Gensan; Genuine Bayer Aspirin Caplets; Genuine Bayer Aspirin Tablets; Gin Pain Pills; Halfprin; Headache Tablet; Healthprin Adult Low Strength; Healthprin Full Strength; Healthprin Half-Dose; Herbopyrine; Instantine; Kalmex; Magan; Magnaprin; Marthritic; Maximum Strength Arthritis Foundation Safety Coated Aspirin; Maximum Strength Ascriptin; Maximum Strength Doan's Analgesic Caplets; Mobidin; Mono-Gesic; Nervine; Norwich Aspirin; Novasen; Novasen Sp.C; P-A-C Revised Formula; PMS-ASA; Pain Aid; Regular Strength Ascriptin; Salflex; Salsitab; Sero-Gesic; Sloprin; St. Joseph Adult Chewable Aspirin; Tri-Buffered ASA; Tricosal; Trilisate; ZORprin.

Category: Analgesic [Aspirin; Aspirin, Buffered; Choline Salicylate; Choline and Magnesium Salicylates; Magnesium Salicylate; Salsalate; Sodium Salicylate]; Anti-inflammatory (nonsteroidal) [Aspirin; Aspirin, Buffered; Choline Salicylate; Choline and Magnesium Salicylates; Magnesium Salicylate; Salsalate; Sodium Salicylate]; Antipyretic [Aspirin; Aspirin, Buffered; Choline Salicylate; Choline and Magnesium Salicylates; Magnesium Salicylate; Salsalate; Sodium Salicylate]; Antirheumatic (nonsteroidal anti-inflammatory) [Aspirin; Aspirin, Buffered; Choline Salicylate; Choline and Magnesium Salicylates; Magnesium Salicylate; Salsalate; Sodium Salicylate]; Platelet aggregation inhibitor [Aspirin Tablets; Aspirin Tablets (Chewable); Aspirin Delayed-release Tablets; Aspirin, Buffered]; Antithrombotic [Aspirin Tablets; Aspirin Tablets (Chewable); Aspirin Delayed-release Tablets; Aspirin, Buffered]; Myocardial infarction prophylactic [Aspirin Tablets; Aspirin Tablets (Chewable); Aspirin Delayed-release Tablets; Aspirin, Buffered]; Myocardial reinfarction prophylactic [Aspirin Tablets; Aspirin Tablets (Chewable); Aspirin Delayed-release Tablets; Aspirin, Buffered].

Conventional indications: Pain (treatment); Fever (treatment); Inflammation, nonrheumatic (treatment); Arthritis, rheumatoid (treatment); Arthritis, juvenile (treatment); Osteoarthritis (treatment); Rheumatic fever (treatment); Platelet aggregation (prophylaxis) [Aspirin (tablets, chewable tablets, delayed-release capsules or tablets, and buffered formulations)]; Ischemic attacks, transient, in males (prophylaxis), Thromboembolism, cerebral (prophylaxis), or Thromboembolism, cerebral, recurrence (prophylaxis) [Aspirin]; Myocardial infarction (prophylaxis), or Myocardial reinfarction (prophylaxis) [Aspirin]; Thromboembolism (prophylaxis) [Aspirin]; Kawasaki disease (treatment) [Aspirin].

Primary Actions or Pathogenetic Symptoms

MIND: *jitters* [Caffeine-containing formulations]; *nervousness* [Caffeine-containing formulations]; behavior, changes in (in young children); confusion, severe; excitement, severe; hallucinations.

HEARING: *deafness; toxicity, mild* (tinnitus, decreased hearing).

STOMACH: irritation, gastrointestinal (mild stomach pain; heartburn or indigestion; nausea with or without vomiting) [Aspirin; less frequent with enteric-coated or buffered formulations and with other salicylates]; *ulceration, gastrointestinal, possibly with bleeding* (bloody or black, tarry stools; stomach pain, severe; vomiting of blood or material that looks like coffee grounds).

ABDOMEN: irritation, gastrointestinal (mild stomach pain; heartburn or indigestion; nausea with or without vomiting) [Aspirin; less frequent with enteric-coated or buffered formulations and with other salicylates]; *ulceration, gastrointestinal, possibly with bleeding* (bloody or black, tarry stools; stomach pain, severe; vomiting of blood or material that looks like coffee grounds); *hepatotoxicity* (abnormal liver function tests).

RECTUM: irritation, rectal [aspirin suppository dosage form].

KIDNEYS: renal function, decreased.

URINE: bloody urine; ketonuria; proteinuria.

RESPIRATION: allergic reaction, bronchospastic (shortness of breath, troubled breathing, tightness in chest, and/or wheezing); *bronchospasm; hyperventilation*; fast or deep breathing (in children); shortness of breath; troubled breathing.

CHEST: *allergic reaction, bronchospastic* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing); *bronchospasm*.

SLEEP: *trouble in sleeping* [Caffeine-containing formulations]; drowsiness, severe (in young children).

FEVER: *hypothermia* [Aspirin; Aspirin, Buffered; Choline Salicylate; Choline and Magnesium Salicylates; Magnesium Salicylate; Salsalate; Sodium Salicylate]; fever, unexplained.

SKIN: *dermatitis, allergic* (skin rash, hives, or itching); *urticaria*.

GENERALITIES: *analgesia* (pain absence) [Aspirin; Aspirin, Buffered; Choline Salicylate; Choline and Magnesium Salicylates; Magnesium Salicylate; Salsalate; Sodium Salicylate]; *bleeding* [Aspirin Tablets; Aspirin Tablets (Chewable); Aspirin Delayed-release Tablets; Aspirin, Buffered]; *hypothermia* [Aspirin; Aspirin, Buffered; Choline Salicylate; Choline and Magnesium Salicylates; Magnesium Salicylate; Salsalate; Sodium Salicylate]; *anaphylactoid reaction* (bluish discoloration or flushing or redness of skin; coughing; difficulty in swallowing ; dizziness or feeling faint, severe; skin rash, hives [may include giant urticaria], and/or itching; stuffy nose; swelling of eyelids, face, or lips; tightness in chest, troubled breathing, and/or wheezing, especially in asthmatic patients); *anemia* (unusual tiredness or weakness) [aspirin or buffered aspirin]; *anemia, hemolytic* (troubled breathing, exertional; unusual tiredness or weakness) [Aspirin]; *stimulation, CNS* (trouble in sleeping, nervousness, or jitters) [Caffeine-containing formulations]; *acidosis, metabolic*; *angioedema*; convulsions; hyperglycemia; hypoglycemia (especially in children); hypokalemia; hyponatremia; salicylism (continuing ringing or buzzing in ears or hearing loss; confusion; severe or continuing diarrhea, stomach pain, and or headache; dizziness or lightheadedness; severe drowsiness; fast or deep breathing; continuing nausea and/or vomiting; uncontrollable flapping movements of the hands, especially in elderly patients; increased thirst; vision problems); tiredness, severe (in young children).

DIAGNOSTIC TESTS: *acidosis, metabolic*; *hepatotoxicity* (abnormal liver function tests); *prothrombin time, decreased*; alterations in acid-base balance (especially respiratory alkalosis and metabolic acidosis); bloody urine; encephalographic abnormalities; hypokalemia; hyponatremia; ketonuria; proteinuria.

Salicylic Acid (Topical)

Commercial name(s): *Antinea; Buf-Puf Acne Cleansing Bar with Vitamin E; Calicylic Creme; Clear Away; Clear by Design Medicated Cleansing Pads; Clearasil Clearstick Maximum Strength Topical Solution; Clearasil Clearstick Regular Strength Topical Solution; Clearasil Double Textured Pads Maximum Strength; Clearasil Double Textured Pads Regular Strength; Clearasil Medicated Deep Cleanser Topical Solution; Compound W Gel; Compound W Liquid; Cuplex Gel; Duofilm; Duoplant Topical Solution; Freezone; Gordofilm; Hydrisalic; Ionax Astringent Skin Cleanser Topical Solution; Ionil Plus Shampoo; Ionil Shampoo; Keralyt; Keratex Gel; Lactisol; Listerex Golden Scrub Lotion; Listerex Herbal Scrub Lotion; Mediplast; Noxzema Anti-Acne Gel; Noxzema Anti-Acne Pads Maximum Strength; Noxzema Anti-Acne Pads Regular Strength; Occlusal Topical Solution; Occlusal-HP Topical Solution; Off-Ezy Topical Solution Corn & Callus Remover*

Kit; Off-Ezy Topical Solution Wart Removal Kit; Oxy Clean Extra Strength Medicated Pads; Oxy Clean Extra Strength Skin Cleanser Topical Solution; Oxy Clean Medicated Cleanser; Oxy Clean Medicated Pads Maximum Strength; Oxy Clean Medicated Pads Regular Strength; Oxy Clean Medicated Pads Sensitive Skin; Oxy Clean Medicated Soap; Oxy Clean Regular Strength Medicated Cleanser Topical Solution; Oxy Clean Regular Strength Medicated Pads; Oxy Clean Sensitive Skin Cleanser Topical Solution; Oxy Clean Sensitive Skin Pads; Oxy Night Watch Maximum Strength Lotion; Oxy Night Watch Night Time Acne Medication Extra Strength Lotion; Oxy Night Watch Night Time Acne Medication Regular Strength Lotion; Oxy Night Watch Sensitive Skin Lotion; Oxy Sensitive Skin Vanishing Formula Lotion; P&S; Paplex; Paplex Ultra; Propa pH Medicated Acne Cream Maximum Strength; Propa pH Medicated Cleansing Pads Maximum Strength; Propa pH Medicated Cleansing Pads Sensitive Skin; Propa pH Perfectly Clear Skin Cleanser Topical Solution Normal/Combination Skin; Propa pH Perfectly Clear Skin Cleanser Topical Solution Oily Skin; Propa pH Perfectly Clear Skin Cleanser Topical Solution Sensitive Skin Formula; Sal-Acid Plaster; Sal-Clens Plus Shampoo; Sal-Clens Shampoo; Sal-Plant Gel Topical Solution; Salac; Salacid; Salactic Film Topical Solution; Salex; Saligel; Salonil; Sebucare; Stri-Dex Dual Textured Pads Maximum Strength; Stri-Dex Dual Textured Pads Regular Strength; Stri-Dex Dual Textured Pads Sensitive Skin; Stri-Dex Maximum Strength Pads; Stri-Dex Regular Strength Pads; Stri-Dex Super Scrub Pads; Tersac Cleansing Gel; Trans-Plantar; Trans-Ver-Sal; Verukan Topical Solution; Verukan-HP Topical Solution; Viranol; Viranol Ultra; Wart-Off Topical Solution; X-Seb.

Category: Keratolytic (topical) [Salicylic Acid Cream; Salicylic Acid Gel USP; Salicylic Acid Lotion; Salicylic Acid Ointment; Salicylic Acid Pads; Salicylic Acid Plaster USP; Salicylic Acid Shampoo; Salicylic Acid Soap; Salicylic Acid Topical Solution]; Antiacne agent (topical) [Salicylic Acid Gel USP; Salicylic Acid Lotion; Salicylic Acid Ointment; Salicylic Acid Pads; Salicylic Acid Soap; Salicylic Acid Topical Solution]; Antiseborrheic [Salicylic Acid Lotion; Salicylic Acid Ointment; Salicylic Acid Shampoo]; Antipsoriatic (topical) [Salicylic Acid Gel USP; Salicylic Acid Ointment]; Caustic [Salicylic Acid Cream; Salicylic Acid Ointment; Salicylic Acid Plaster USP; Salicylic Acid Topical Solution].

Conventional indications: Acne vulgaris (treatment) [Salicylic acid gel, lotion, ointment, pads, soap, and topical solution]; Dandruff (treatment), Dermatitis, seborrheic (treatment), or Dermatitis, seborrheic, of scalp (treatment) [Salicylic acid lotion and shampoo]; Psoriasis (treatment) [Salicylic acid gel and ointment]; Hyperkeratotic skin disorders (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: confusion.

VERTIGO: dizziness.

HEAD: headache, severe or continuing.

HEARING: ringing or buzzing in ears, continuing.

RESPIRATION: rapid breathing.

SKIN: *caustic* [Salicylic Acid Cream; Salicylic Acid Ointment; Salicylic Acid Plaster USP; Salicylic Acid Topical Solution]; *peeling* [Salicylic Acid Cream; Salicylic Acid Gel USP; Salicylic Acid Lotion; Salicylic Acid Ointment; Salicylic Acid Pads; Salicylic Acid

Plaster USP; Salicylic Acid Shampoo; Salicylic Acid Soap; Salicylic Acid Topical Solution]; **irritation, mild to severe, not present before therapy; stinging; *erosion*; *ulceration*; *erythema*** (flushing, redness of skin; unusually warm skin) [use on open skin lesions]; *scaling* (dryness and peeling of skin) [use on open skin lesions].

GENERALITIES: *salicylism* (ringing or buzzing in ears; hearing loss; confusion, severe; diarrhea; stomach pain; headache; dizziness; lightheadedness; severe drowsiness; fast or deep breathing; nausea; vomiting) [use on open skin lesions].

Salicylic Acid and Sulfur (Topical)

Commercial name(s): *Essential Care Creamy Dandruff Shampoo; Essential Care Maximum Strength Dandruff Shampoo; Essential Care Medicated Dandruff Wash; Meted; Pernox (Lemon); Pernox (Regular); Pernox Lathering Abradant Scrub Cleanser (Fresh Scent); SASTid Soap; Sebex; Sebulex; Sebulex (Regular); Sebulex (with Conditioners).*

Category: Keratolytic (topical) [Salicylic Acid and Sulfur]; Antiacne agent (topical) [Salicylic Acid and Sulfur Bar; Salicylic Acid and Sulfur Cleansing Lotion]; Antiseborrheic (topical) [Salicylic Acid and Sulfur Bar; Salicylic Acid and Sulfur Shampoo].

Conventional indications: Acne vulgaris (treatment); Oily skin (treatment); Dandruff (treatment); Dermatitis, seborrheic, of scalp (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *peeling* [Salicylic Acid and Sulfur]

Salicylic Acid - See Salicylic Acid (Topical).

Sulfur - See Sulphur (Topical).

Salicylic Acid, Sulfur, and Coal Tar (Topical)

Commercial name(s): *Sebex-T Tar Shampoo; Sebutone; Vanseb-T.*

Category: Keratolytic (topical); Antiseborrheic; Antipsoriatic (topical).

Conventional indications: Dandruff (treatment); Dermatitis, seborrheic, of scalp (treatment); Psoriasis, of scalp (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *peeling.*

Salicylic Acid - See Salicylic Acid (Topical).

Sulfur - See Sulphur (Topical).

Coal Tar - See Coal Tar (Topical).

Samarium Sm 153 Lexidronam (Systemic)

Commercial name(s): *Quadramet.*

Category: Antineoplastic.

Conventional indications: Pain, metastatic bone lesion-associated (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: *nausea; vomiting.*

CHEST: *arrhythmias, cardiac* (irregular heartbeat).

GENERALITIES: **depression, bone marrow; leukopenia** (cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *arrhythmias, cardiac* (irregular heartbeat); *flare reaction* (increase in bone pain, transient).

DIAGNOSTIC TESTS: **leukopenia; thrombocytopenia.**

Saquinavir (Systemic)

Commercial name(s): *Fortovase; Invirase.*

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus (HIV) infection (treatment); Immunodeficiency syndrome, acquired (AIDS) (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety* (fear, nervousness); *depression* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping).

HEAD: *headache.*

MOUTH: *taste alteration* (change in taste).

STOMACH: *appetite decreased; disturbances, gastrointestinal* (abdominal pain; diarrhea; mouth ulcers; nausea); *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); *vomiting.*

ABDOMEN: *disturbances, gastrointestinal* (abdominal pain; diarrhea; mouth ulcers; nausea); *flatulence* (bloated full feeling; excess air or gas in stomach or intestines; passing gas).

RECTUM: *constipation* (difficulty having a bowel movement [stool]).

GENITALIA MALE: *libido disorder* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection).

GENITALIA FEMALE: *libido disorder* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse).

CHEST: *pain, chest.*

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep).

SKIN: *eczema* (skin rash encrusted, scaly and oozing); *verruca* (skin wart); *rash*

GENERALITIES: *asthenia* (weakness); *fatigue* (unusual tiredness or weakness); *diabetes* (dry or itchy skin; fatigue; hunger, increased; thirst, increased; unexplained weight loss; urination, increased); *body fat, redistribution or accumulation of* (including central obesity, dorsocervical fat enlargement (buffalo hump), facial wasting, peripheral wasting, breast

enlargement, and “cushingoid appearance”); *hyperglycemia* (dry or itchy skin; fatigue; hunger, increased; thirst, increased; unexplained weight loss; urination, increased); *ketoacidosis* (confusion; dehydration; mouth odor, fruity; nausea; vomiting; weight loss); *paresthesia* (burning or prickling sensation).

DIAGNOSTIC TESTS: *hyperglycemia; ketoacidosis.*

Scopolamine (Ophthalmic)

Commercial name(s): *Isopto Hyoscine.*

Category: Cycloplegic; Mydriatic.

Conventional indications: Refraction, cycloplegic; Uveitis (treatment); Synechiae, posterior (prophylaxis); Synechiae, posterior (treatment); Mydriasis, postoperative; Iridocyclitis, postoperative (treatment); Iridocyclitis, preoperative (treatment); Iridocyclitis (treatment); Mydriasis, in diagnostic procedures.

Primary Actions or Pathogenetic Symptoms

MIND: *behavior, unusual; clumsiness; confusion; hallucinations; speech, slurred.*

EYE: *cyclopegia* (paralysis of the ciliary muscle, resulting in a loss of visual accommodation); *mydriasis* (extensive pupils); *irritation, local* (follicular conjunctivitis, vascular congestion, edema, exudate, contact dermatitis, or an eczematoid dermatitis) (prolonged use); *irritation not present before therapy; sensitivity to light, increased; swelling of the eyelids.*

VISION: *cyclopegia* (paralysis of the ciliary muscle, resulting in a loss of visual accommodation); *blurred vision.*

FACE: *flushing; redness.*

MOUTH: *speech, slurred; xerostomia* (thirst or dryness of mouth).

STOMACH: *swollen stomach in infants.*

CHEST: *tachycardia* (fast or irregular heartbeat).

EXTREMITIES: *clumsiness; unsteadiness.*

SLEEP: *drowsiness, unusual.*

FEVER: *fever.*

SKIN: *dryness; rash.*

GENERALITIES: *susceptibility to scopolamine, increased* (in infants, young children, children with blond hair or blue eyes, adults and children with Down’s syndrome, children with brain damage or spastic paralysis, and the elderly); *tachycardia* (fast or irregular heartbeat); *tiredness; weakness.*

Selegiline (Systemic)

Commercial name(s): *Apo-Selegiline; Carbox; Eldepryl; Gen-Selegiline; Novo-Selegiline; Nu-Selegiline; SD Deprenyl; Selegiline-5.*

Category: Antidyskinetic.

Conventional indications: Parkinsonism (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: mood or other mental changes; anxiety; hallucinations; irritability, temporary; memory, impaired; nervousness; restlessness; agitation [MAO inhibitors].

VERTIGO: dizziness; feeling faint; balance control, loss of; hypotension, orthostatic (dizziness or lightheadedness, especially when getting up from a lying or sitting position); fainting [MAO inhibitors].

HEAD: headache.

EYE: blepharospasm (sudden closing of eyelids); photosensitivity (increased sensitivity of skin and eyes to sunlight); pupils, enlarged; sensitivity to light, increased.

VISION: blurred vision; double vision.

HEARING: tinnitus (ringing or buzzing in ears).

FACE: paresthesias, circumoral (burning of lips or mouth); trismus (difficulty opening the mouth; lockjaw) [MAO inhibitors].

MOUTH: dryness; difficulty in speaking; taste changes.

TEETH: bruxism (clenching, gnashing, or grinding teeth).

THROAT: burning of throat.

EXTERNAL THROAT: sore neck; stiff neck.

STOMACH: nausea; pain; vomiting; appetite, loss of; bleeding, gastrointestinal (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds); heartburn.

ABDOMEN: pain, abdominal; bleeding, gastrointestinal (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds).

RECTUM: bleeding, gastrointestinal (bloody or black, tarry stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds); constipation; diarrhea.

BLADDER: urinate, frequent urge to; urination, slow or difficult.

PROSTATE GLAND: hypertrophy, prostatic (difficult or frequent urination).

RESPIRATION: asthma (wheezing, difficulty in breathing, or tightness in chest); depression, respiratory (troubled breathing) [MAO inhibitors].

CHEST: angina pectoris, new or increased (chest pain); arrhythmias (irregular heartbeat); asthma (wheezing, difficulty in breathing, or tightness in chest); bradycardia, sinus (slow heartbeat); palpitations (pounding or fast heartbeat); tachycardia (pounding or fast heartbeat); heartbeat, fast or slow; pain, chest, severe; pulse, fast or irregular, continuing [MAO inhibitors].

BACK: pain, back; opisthotonus (severe spasm where the head and heels are bent backward and the body arched forward) [MAO inhibitors].

EXTREMITIES: apraxia, increased (inability to move); cramps, muscle; edema, peripheral (swelling of feet or lower legs); motor/coordination/extrapyrarnidal effects (difficulty in speaking; loss of balance control; uncontrolled movements, especially of face, neck, and back; restlessness or desire to keep moving; twisting movements of body); numbness of fingers or toes; pain, leg; jerks, myoclonic (sudden jerky movements of body); twitches, muscle (sudden jerky movements of body).

SLEEP: insomnia (trouble in sleeping); drowsiness.

CHILL: chills.

FEVER: fever; hyperpyrexia (high fever) [MAO inhibitors].

PERSPIRATION: diaphoresis (increased sweating); *sweating, increased, possibly with fever or cold, clammy skin.*

SKIN: photosensitivity (increased sensitivity of skin and eyes to sunlight); rash; *cold, clammy skin, possibly with increased sweating.*

GENERALITIES: ache, body; apraxia, increased (inability to move); arrhythmias (irregular heartbeat); bradycardia, sinus (slow heartbeat); bradykinesia, increased (slowed movements); cramps, muscle; feeling of well-being, unusual; hypertension (high blood pressure); hypotension (low blood pressure); hypotension, orthostatic (dizziness or lightheadedness, especially when getting up from a lying or sitting position); motor/coordination/extrapyramidal effects (difficulty in speaking; loss of balance control; uncontrolled movements, especially of face, neck, and back; restlessness or desire to keep moving; twisting movements of body); palpitations (pounding or fast heartbeat); tachycardia (pounding or fast heartbeat); tiredness or weakness, unusual; weight loss; heartbeat, fast or slow; hypertensive crisis (chest pain, severe; enlarged pupils; fast or slow heartbeat; headache, severe; increased sensitivity of eyes to light; increased sweating, possibly with fever or cold, clammy skin; nausea or vomiting, severe; stiff or sore neck); jerks, myoclonic (sudden jerky movements of body); twitches, muscle (sudden jerky movements of body); convulsions [MAO inhibitors]; death; pulse, fast or irregular, continuing [MAO inhibitors].

DIAGNOSTIC TESTS: *liver enzymes, elevation of.*

Secondary Actions or Rebound Effects: dyskinesias (increase in unusual movements of body); movements, uncontrolled, especially of face, neck, and back; tardive dyskinesia (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs).

Selenium Sulfide (Topical)

Commercial name(s): *Exsel Lotion Shampoo; Glo-Sel; Head & Shoulders Intensive Treatment 2 in 1 (Persistent Dandruff Shampoo plus Conditioner in One) Formula Dandruff Lotion Shampoo; Head & Shoulders Intensive Treatment Conditioning Formula Dandruff Lotion Shampoo; Head & Shoulders Intensive Treatment Regular Formula Dandruff Lotion Shampoo; Selsun; Selsun Blue; Selsun Blue Dry Formula; Selsun Blue Extra Conditioning Formula; Selsun Blue Extra Medicated Formula; Selsun Blue Oily Formula; Selsun Blue Regular Formula; Versel Lotion.*

Category: Antiseborrheic.

Conventional indications: Dandruff (treatment); Dermatitis, seborrheic, of scalp (treatment); Tinea versicolor (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: dryness of hair or scalp, unusual; oiliness of hair or scalp, unusual; hair loss, normal, increase in.

SKIN: hair loss, normal, increase in; irritation.

GENERALITIES: hair loss, normal, increase in.

Selenium Supplements (Systemic)

Commercial name(s): *Sele-Pak; Selepen.*

Category: Nutritional supplement (mineral).

Conventional indications: Selenium deficiency (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

MIND: irritability.

HEAD: hair loss.

MOUTH: odor of breath, garlic; taste, metallic.

STOMACH: nausea; vomiting.

RECTUM: diarrhea.

NAILS: weakening, fingernail.

PERSPIRATION: odor of sweat, garlic.

SKIN: dermatitis (itching of skin); hair loss.

GENERALITIES: hair loss; tiredness and weakness, unusual.

Sermorelin (Systemic)

Commercial name(s): *Geref.*

Category: Growth hormone - releasing hormone.

Conventional indications: Growth hormone deficiency (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *hyperactivity* (trouble sitting still).

VERTIGO: *dizziness.*

HEAD: *headache.*

FACE: *flushing* (intravenous administration).

MOUTH: *parageusia* (intravenous administration).

THROAT: *swallowing, trouble in.*

STOMACH: *vomiting* (intravenous administration).

CHEST: *tightness in the chest* (intravenous administration).

SLEEP: *somnolence* (sleepiness).

SKIN: *flushing; pallor* (intravenous administration); *urticaria* (itching).

GENERALITIES: **injection site reaction** (pain; redness; swelling); *antibodies to growth hormone - releasing hormone, development of; flushing; hyperactivity* (trouble sitting still); *pain, injection site; pallor* (intravenous administration); *redness of injection site; swelling of injection site.*

Sertaconazole (Topical)

Commercial name(s): *Ertaczo.*

Category: Antifungal (topical).

Conventional indications: Interdigital tinea pedis (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *burning; dermatitis, contact* (blistering, burning, crusting, dryness or flaking of skin; itching, scaling, severe redness, soreness or swelling of skin); *desquamation* (peeling of skin); *dryness; erythema* (flushing, redness of skin; unusually warm skin); *hyperpigmentation* (darkening of skin); *pruritus* (itching skin); *tenderness; vesiculation* (blistering, peeling, or loosening of the skin).

GENERALITIES: *application site reaction* (burning, itching, redness, skin rash, swelling, or soreness at site).

Sertraline (Systemic)

Commercial name(s): *Zoloft*.

Category: Antianxiety agent; Antidepressant; Antiobsessional agent; Antipanic agent; Posttraumatic stress disorder therapy agent; Premenstrual dysphoric disorder (PMDD) therapy agent.

Conventional indications: Depressive disorder, major (treatment); Obsessive-compulsive disorder (treatment); Panic disorder (treatment); Posttraumatic stress disorder (treatment); Premenstrual dysphoric disorder (treatment); Social anxiety disorder (treatment); Premature ejaculation (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *aggressive reaction* (in pediatric patients); *agitation; akathisia* (inability to sit still; restlessness); *anxiety; mania or hypomania* (fast talking and excited feelings or actions that are out of control); *nervousness; psychosis* (feeling that others can hear your thoughts, feeling that others are watching you or controlling your behavior, feeling, seeing, or hearing things that are not there, severe mood or mental changes, unusual behavior); *restlessness*; coma (change in consciousness, loss of consciousness); delirium (unusual excitement, nervousness, or restlessness, hallucinations, confusion as to time, place, or person holding false beliefs that cannot be changed by fact); hallucinations (seeing, hearing, or feeling things that are not there); manic reaction (actions that are out of control, irritability, nervousness, talking, feeling, and acting with excitement); stupor (decreased awareness or responsiveness; severe sleepiness). (rebound effect?)

VERTIGO: *dizziness; balance control, loss of; syncope* (fainting).

HEAD: *headache*.

EYE: *angioedema* (large, hive-like swelling on eyelids); *cataract* (blindness, blurred vision, decreased vision); *neuritis, optic* (blindness, blue-yellow color blindness, blurred vision, decreased vision, eye pain); *oculogyric crisis* (fixed position of eye); mydriasis (unusually large pupils).

VISION: *blurred vision; changes in vision; blindness*.

NOSE: *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest; wheezing) (in pediatric patients).

FACE: *movements or postures, facial, unusual or sudden; angioedema* (large, hive-like swelling on face, lips).

MOUTH: *dryness; angioedema* (large, hive-like swelling on tongue); *difficulty in speaking; drooling.*

THROAT: *angioedema* (large, hive-like swelling on throat).

EXTERNAL THROAT: *hypothyroidism* (constipation; depressed mood; dry skin and hair; feeling cold; hair loss; hoarseness or husky voice; muscle cramps and stiffness; slowed heartbeat; weight gain; unusual tiredness or weakness).

STOMACH: *anorexia* (decrease in appetite); **cramps; dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); **gas; nausea; pain; appetite, increased; vomiting.**

ABDOMEN: **cramps, abdominal; gas; pain, abdominal; failure, liver** (headache, stomach pain, continuing vomiting, dark-colored urine, general feeling of tiredness or weakness, light-colored stools, yellow eyes or skin); *hepatomegaly* (right upper abdominal pain and fullness); *pancreatitis* (bloating, chills, constipation, darkened urine, fast heartbeat, fever, indigestion, loss of appetite, nausea, pains in stomach, side, or abdomen, possibly radiating to the back, vomiting, yellow eyes or skin).

RECTUM: **diarrhea; constipation.**

STOOL: **loose stools.**

BLADDER: *incontinence, urinary* (loss of bladder control) (in pediatric patients); *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain) (in older adults).

KIDNEYS: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain) (in older adults); *failure, renal, acute* (agitation, coma, confusion, decreased urine output, depression, dizziness, headache, hostility, irritability, lethargy, muscle twitching, nausea, rapid weight gain, seizures, stupor, swelling of face, ankles, or hands, unusual tiredness or weakness).

GENITALIA MALE: **ejaculation failure** (failure to discharge semen (in men)); **sexual dysfunction** (decreased sexual desire or ability; decreased libido, impotence, delayed ejaculation, anorgasmia); *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: **sexual dysfunction** (decreased sexual desire or ability; decreased libido; anorgasmia); *angioedema* (large, hive-like swelling on sex organs).

CHEST: *enlargement, breast* (in females); *galactorrhea* (unusual secretion of milk) (in females); *palpitation* (fast or irregular heartbeat); *tenderness, breast* (in females); *arrhythmias, atrial* (dizziness, fainting, fast, slow, or irregular heartbeat); *block, atrioventricular [AV]* (chest pain, dizziness, fainting, pounding, slow heartbeat, troubled breathing, unusual tiredness or weakness); *bradycardia* (chest pain or discomfort, lightheadedness, dizziness or fainting, shortness of breath, slow or irregular heartbeat, unusual tiredness); *hyperprolactinemia* (swelling of breasts or unusual milk production); *hypertension, pulmonary* (shortness of breath); *tachycardia, ventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations; including torsade de pointes-type

arrhythmias); block, bundle branch (chest pain or discomfort, fainting, shortness of breath, slow or irregular heartbeat, sweating); tachycardia (unusually fast heartbeat).

EXTREMITIES: *akathisia* (inability to sit still; restlessness); *movements or postures, body, unusual or sudden*; *angioedema* (large, hive-like swelling on hands, legs, feet); *gait instability* (trouble in walking); *jerking, muscle*; *stiffness, muscle*; *trembling, muscle*; tremor (trembling or shaking of hands or feet, shakiness in legs, arms, hands, feet).

SLEEP: *drowsiness*; *insomnia* (trouble in sleeping); *somnolence* (sleepiness or unusual drowsiness); *yawning*.

DREAMS: *dreams, abnormal*.

FEVER: *fever*.

PERSPIRATION: *sweating, increased*.

SKIN: *flushing with feeling of warmth or heat*; *hives*; *itching*; *rash*; *redness with feeling of warmth or heat*; *photosensitivity* (increased sensitivity of skin to sunlight, itching, redness or other discoloration of skin, severe sunburn, skin rash).

GENERALITIES: *fatigue* (unusual tiredness or weakness); *tiredness*; *weakness*; *weight loss*; *bleeding, abnormal* (red or purple spots on skin; nose bleeds); *extrapyramidal effects, dystonic* (unusual or sudden body or facial movements or postures); *flushing with feeling of warmth or heat*; *hyperkinesia* (increase in body movements) (in pediatric patients); *hyponatremia* (confusion; drowsiness; dryness of mouth; increased thirst; lack of energy; seizures); *movements or postures, body, unusual or sudden*; *palpitation* (fast or irregular heartbeat); *paresthesias* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *seizure* (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); *serotonin syndrome* (diarrhea; fever; increased sweating; mood or behavior changes; overactive reflexes; racing heartbeat; restlessness; shivering or shaking; agitation, confusion, poor coordination, talking or acting with excitement you cannot control, twitching; cardiac arrhythmias, coma, disseminated intravascular coagulation, hypertension or hypotension, renal failure, respiratory failure, seizures, severe hyperthermia); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest; wheezing) (in pediatric patients); *agranulocytosis* (cough or hoarseness, fever with or without chills, general feeling of tiredness or weakness, lower back or side pain, painful or difficult urination, sore throat, sores, ulcers, or white spots on lips or in mouth, unusual bleeding or bruising); *anaphylactoid reaction* (cough, difficulty swallowing, dizziness, fast heartbeat, hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue, shortness of breath, skin rash, tightness in chest, unusual tiredness or weakness, wheezing); *anemia, aplastic* (chest pain, chills, cough, fever, headache, shortness of breath, sores, ulcers, or white spots on lips or in mouth, swollen or painful glands, tightness in chest, unusual bleeding or bruising, unusual tiredness or weakness, wheezing); *arrhythmias, atrial* (dizziness, fainting, fast, slow, or irregular heartbeat); *block, atrioventricular [AV]* (chest pain, dizziness, fainting, pounding, slow heartbeat, troubled breathing, unusual tiredness or weakness); *bradycardia* (chest pain or discomfort, lightheadedness, dizziness or fainting, shortness of breath, slow or irregular heartbeat, unusual tiredness); *coagulation times, increased*; *electric shock sensations*; *extrapyramidal symptoms* (difficulty in speaking, drooling, loss of balance control, muscle trembling, jerking, or stiffness, restlessness, shuffling walk, stiffness of limbs, twisting

movements of body, uncontrolled movements, especially of face, neck, and back); *gait instability* (trouble in walking); *hepatitis* (dark urine, general tiredness and weakness, light-colored stools, nausea and vomiting, upper right abdominal pain, yellow eyes and skin); *hyperglycemia* (abdominal pain, blurred vision, dry mouth, fatigue, flushed, dry skin, fruit-like breath odor, increased hunger, increased thirst, increased urination, nausea, sweating, troubled breathing, unexplained weight loss, vomiting); *hyperprolactinemia* (swelling of breasts or unusual milk production); *hypothyroidism* (constipation; depressed mood; dry skin and hair; feeling cold; hair loss; hoarseness or husky voice; muscle cramps and stiffness; slowed heartbeat; weight gain; unusual tiredness or weakness); *jaundice* (chills, clay-colored stools, dark urine, dizziness, fever, headache, itching, loss of appetite, nausea, abdominal or stomach pain, rash, unpleasant breath odor, unusual tiredness or weakness, vomiting of blood, yellow eyes or skin); *jerking, muscle*; *leukopenia* (black, tarry stools, chest pain, chills, cough, fever, painful or difficult urination, shortness of breath, sore throat, sores, ulcers, or white spots on lips or in mouth, swollen glands, unusual bleeding or bruising, unusual tiredness or weakness); *lupus-like syndrome* (fever or chills, general feeling of discomfort, illness, or weakness); *neuroleptic malignant syndrome-like events* (convulsions, difficulty in breathing, fast heartbeat, high fever, high or low blood pressure, increased sweating, loss of bladder control, severe muscle stiffness, unusually pale skin, tiredness); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *serum sickness* (feeling of discomfort, fever, inflammation of joints, itching, muscle aches, rash, swollen lymph glands); *Steven-Johnson syndrome* (blistering, peeling, loosening of skin, chills, cough, diarrhea, itching, joint or muscle pain, red irritated eyes, red skin lesions, often with a purple center, sore throat, sores, ulcers, or white spots in mouth or on lips, unusual tiredness or weakness); *stiffness, muscle*; *syndrome of inappropriate antidiuretic hormone secretion (SIADH)*; *tachycardia, ventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations; including torsade de pointes-type arrhythmias); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *trembling, muscle*; *vasculitis* (redness, soreness or itching skin; fever; sores, welting or blisters); coma (change in consciousness, loss of consciousness); convulsions; death (Sertraline in combination with other drugs and/or alcohol); hypertension (blurred vision, dizziness, nervousness, headache, pounding in the ears, slow or fast heartbeat); hypotension (blurred vision, confusion, dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly, sweating, unusual tiredness or weakness); tachycardia (unusually fast heartbeat).

DIAGNOSTIC TESTS: *hyponatremia*; *agranulocytosis*; *block, atrioventricular [AV]*; *coagulation times, increased*; *hyperglycemia*; *hyperprolactinemia*; *leukopenia*; *pancytopenia*; *QT-interval prolongation*; *tachycardia, ventricular*; *thrombocytopenia*; electrocardiogram (ECG) changes.

Sevelamer (Oral-Local)

Commercial name(s): *Renagel*.

Category: Antihyperphosphatemic.

Conventional indications: Hyperphosphatemia (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: *dyspepsia* (heartburn); *nausea*; *vomiting*.

ABDOMEN: *flatulence* (bloating or gas).

RECTUM: *constipation*; *diarrhea*.

GENERALITIES: *hypophosphatemia*.

DIAGNOSTIC TESTS: *hypophosphatemia*.

Sevoflurane (Inhalation-Systemic)

Commercial name(s): *Sevorane*; *Ultane*.

Category: Anesthetic (general).

Conventional indications: Anesthesia, general.

Primary Actions or Pathogenetic Symptoms

MIND: *anesthesia* (unconsciousness); **agitation** (in adult and pediatric patients, during induction by mask).

VERTIGO: **dizziness** (in adult and pediatric patients, during maintenance and recovery); *syncope*.

HEAD: *headache* (in adult and pediatric patients, during maintenance and recovery).

MOUTH: **salivation, increased** (in adult and pediatric patients, during maintenance and recovery).

STOMACH: **nausea** (in adult and pediatric patients, during maintenance and recovery); **vomiting** (in adult and pediatric patients, during maintenance and recovery).

LARYNX AND TRACHEA: **laryngospasm** (in adult patients, during induction by mask; less frequent in pediatric patients during induction by mask, or in adult and pediatric patients during maintenance and recovery).

RESPIRATION: **breath-holding** (in adult and pediatric patients, during induction by mask; less frequent during maintenance and recovery); **laryngospasm** (in adult patients, during induction by mask; less frequent in pediatric patients during induction by mask, or in adult and pediatric patients during maintenance and recovery); **obstruction, airway** (in adult patients, during induction by mask); *apnea* (in pediatric patients, during induction by mask); *bronchospasm*; *hypoxia*; *wheezing*; depression, respiratory.

COUGH: **cough, increased or new** (in adult and pediatric patients, during induction by mask or during maintenance and recovery).

CHEST: **bradycardia** (in adult patients, during induction by mask, or in adult and pediatric patients during maintenance and recovery); **tachycardia** (in pediatric patients, during induction by mask; less frequent in adults during induction by mask, or in adult and pediatric patients during maintenance and recovery); *arrhythmias*; *bronchospasm*; arrest, cardiac; cardiac contractility, decreased.

EXTREMITIES: vascular resistance, peripheral, decreased.

SLEEP: **drowsiness** (in adult and pediatric patients, during maintenance and recovery).

CHILL: shivering (in adult and pediatric patients, during maintenance and recovery).

FEVER: *fever* (in adult and pediatric patients during maintenance and recovery) (rebound effect?); *hypothermia* (in adult and pediatric patients during maintenance and recovery); *hyperthermia, malignant*.

GENERALITIES: *anesthesia*; **bradycardia** (in adult patients, during induction by mask, or in adult and pediatric patients during maintenance and recovery); **hypotension** (in adult and pediatric patients, during induction by mask, or in adult and pediatric patients during maintenance and recovery); *hypertension* (in adult and pediatric patients during maintenance and recovery); *hypothermia* (in adult and pediatric patients during maintenance and recovery); *acidosis*; *arrhythmias*; *hypoxia*; *hyperthermia, malignant*; *seizures*; collapse, circulatory; depression, circulatory; vascular resistance, peripheral, decreased.

DIAGNOSTIC TESTS: *acidosis*; *hypoxia*.

Sibutramine (Systemic)

Commercial name(s): *Meridia*.

Category: Appetite suppressant.

Conventional indications: Obesity, exogenous (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety*; *impatience*, *unusual*; *irritability*; *nervousness*; *depression, mental*; *emotional lability* (rapidly changing moods).

VERTIGO: *dizziness*.

HEAD: *headache*; *migraine* (severe headache).

NOSE: *rhinitis* (stuffy or runny nose).

MOUTH: *dryness*; *taste perversion* (change in sense of taste).

STOMACH: *appetite, loss of*; *dyspepsia* (indigestion); *nausea*; *thirst, increased*.

ABDOMEN: *pain, abdominal*.

RECTUM: *constipation*; *diarrhea*.

KIDNEYS: *nephritis, interstitial, acute* (swelling of body or of feet and ankles; unusual weight gain).

GENITALIA FEMALE: *dysmenorrhea* (painful menstruation).

CHEST: *palpitation* (fast or irregular heartbeat); *tachycardia* (fast or irregular heartbeat); heart rate, increased.

BACK: *pain, back*

EXTREMITIES: *edema* (swelling of body or of feet and ankles).

SLEEP: *insomnia* (trouble in sleeping); *drowsiness*.

PERSPIRATION: *sweating, increased*.

SKIN: *rash*.

GENERALITIES: *stimulation*, **central nervous system (CNS)** (*anxiety*; *insomnia*; *irritability* or *unusual impatience*; *nervousness*); *edema* (swelling of body or of feet and ankles); *hypertension* (increased blood pressure); *influenza-like symptoms* (*chills*; *achiness*); *palpitation* (fast or irregular heartbeat); *paresthesia* (*burning*, *itching*, *prickling*, or *tingling*).

of skin); *tachycardia* (fast or irregular heartbeat); *vasodilation* (unusual warmth or flushing of skin); *bleeding, abnormal* (bruising or red spots or patches on skin; excessive bleeding following injury); *seizures*; *serotonin uptake into platelets, inhibition of*; heart rate, increased.

DIAGNOSTIC TESTS: *serotonin uptake into platelets, inhibition of*.

Secondary Actions or Rebound Effects: *appetite, increased*.

Sildenafil (Systemic)

Commercial name(s): *Revatio, Viagra*.

Category: Impotence therapy agent (systemic); Antihypertensive (pulmonary).

Conventional indications: Erectile dysfunction (treatment); Pulmonary arterial hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; depression, mental*.

VERTIGO: *dizziness; hypotension, orthostatic* (dizziness or lightheadedness, especially when getting up from a lying or sitting position; low blood pressure); *syncope* (fainting); *vertigo* (sensation of motion, usually whirling, either of one's self or of one's surroundings)

HEAD: headache; hemorrhage, cerebrovascular (headache, severe or continuing; seizures; sudden weakness; vision changes, such as blurred vision or temporary blindness); *hemorrhage, intracerebral or subarachnoid* (confusion; headache, sudden, severe, and continuing; nausea and vomiting); *ischemic attack, transient* (chest pain; fainting; fast heartbeat; increased sweating; nausea, continuing or severe; nervousness; shortness of breath; weakness); *migraine; thrombosis, cerebral* (confusion; numbness of hands).

EYE: sensitivity to light; bleeding, retinal vascular (changes in vision; bleeding of eye); *burning; cataracts; conjunctivitis* (feeling of something in the eye; redness, itching, or tearing of eyes); *detachment, vitreous* (decrease in vision or other changes in vision); *dryness; edema, paramacular* (blurred vision or other changes in vision); *hemorrhage* (eye pain); *neuropathy, optic, non-arteritic anterior ischemic (NAION)* (blindness; blurred vision; decreased vision); *pressure, intraocular, increased; mydriasis* (increase in size of pupil); *redness; retinal vascular disease* (changes in vision; bleeding of eye); *swelling; traction, vitreous* (decrease in vision or other changes in vision).

VISION: abnormal vision (blurred vision; color change perception; sensitivity to light); *blurred vision; color change perception* (seeing shades of colors differently than before); *diplopia* (double vision); *loss of vision, temporary*.

EAR: *pain, ear*.

HEARING: *deafness; tinnitus* (ringing or buzzing in ears).

NOSE: congestion, nasal; epistaxis (bloody nose); *rhinitis* (stuffy nose; runny nose; sneezing); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

FACE: *edema* (swelling of face).

MOUTH: *dryness; gingivitis* (redness, soreness, swelling, or bleeding of gums); *saliva, increased amount of; stomatitis* (redness or irritation of the tongue; sores in mouth and on lips).

THROAT: *esophagitis* (difficulty in swallowing); *pharyngitis*.

STOMACH: **dyspepsia** (stomach discomfort following meals); *gastritis* (burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion); *gastroenteritis* (abdominal pain; diarrhea, severe; nausea); *thirst, increased; vomiting*.

ABDOMEN: *colitis* (severe diarrhea or stomach cramps); *gastroenteritis* (abdominal pain; diarrhea, severe; nausea); *pain, abdominal*.

RECTUM: **diarrhea; bleeding, rectal**.

BLADDER: *cystitis* (bladder pain; cloudy or bloody urine; increased frequency of urination; pain on urination); *infection, urinary tract* (bladder pain; cloudy or bloody urine; increased frequency of urination; pain on urination); *frequency, urinary; incontinence, urinary* (loss of bladder control); *nocturia* (waking to urinate at night).

KIDNEYS: *infection, urinary tract* (bladder pain; cloudy or bloody urine; increased frequency of urination; pain on urination).

URINE: *hematuria* (blood in urine).

GENITALIA MALE: **erection, prolonged; ejaculation, abnormal** (failure to experience a sexual orgasm; sexual problems in men, continuing); *anorgasmia* (failure to experience a sexual orgasm; sexual problems in men, continuing); *priapism* (prolonged, painful, inappropriate erection of penis).

LARYNX AND TRACHEA: *laryngitis*.

RESPIRATION: **dyspnea** (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); *asthma; bronchitis*.

CHEST: **hypotension, pulmonary; angina pectoris** (chest pain); *arrest, cardiac* (heart failure); *arrhythmia, ventricular* (irregular heartbeat); *asthma; block, AV* (fainting; trouble in breathing; unusual weakness); *bronchitis; death, sudden cardiac* (heart failure); *enlargement, breast; hemorrhage, pulmonary* (coughing up blood; shortness of breath); *infarction, myocardial* (chest pain; fainting; fast heartbeat; increased sweating; nausea, continuing or severe; nervousness; shortness of breath; weakness); *ischemia, myocardial* (chest pain; fainting; fast heartbeat; increased sweating; nausea, continuing or severe; nervousness; shortness of breath; weakness); *palpitation* (pounding heartbeat); *tachycardia* (fast heartbeat).

EXTREMITIES: **myalgia** (aches or pains in muscles); *arthritis; arthrosis; ataxia* (clumsiness or unsteadiness); *edema* (swelling of hands, feet, or lower legs); *gout; hypertonia* (tense muscles); *myasthenia* (weakness of muscles); *neuralgia; neuropathy; reflexes, decreased* (lack of coordination); *rupture, tendon* (bone pain; lower back or side pain; painful, swollen joints); *synovitis; tenosynovitis; tremor* (aches, pains, or weakness of muscles; numbness or tingling of hands, legs, or feet; trembling and shaking; unusual feeling of burning or stinging of skin).

SLEEP: **insomnia** (trouble in sleeping); *somnolence* (sleepiness).

DREAMS: *abnormal dreams*.

CHILL: *chills*.

FEVER: **pyrexia** (fever).

PERSPIRATION: *sweating, increased*.

SKIN: **erythema** (flushing, redness of skin; unusually warm skin); **flushing**; *allergic reaction* (skin rash; hives; itching of skin); *dermatitis, contact*; *dermatitis, exfoliative* (dryness, redness, scaling, or peeling of the skin); *herpes simplex* (groups of skin lesions with swelling; unusual feeling of burning or stinging of skin); *pruritus*; *ulcers*; *urticaria* (hives; itching; redness of skin).

GENERALITIES: **flushing**; **myalgia** (aches or pains in muscles); *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *anemia* (unusual tiredness or weakness); *arrhythmia, ventricular* (irregular heartbeat); *arthritis*; *arthrosis*; *asthenia* (unusual tiredness or weakness); *death, sudden cardiac* (heart failure); *gout*; *herpes simplex* (groups of skin lesions with swelling; unusual feeling of burning or stinging of skin); *hyperglycemia* (faintness; nausea; paleness of skin; sweating); *hypernatremia* (confusion; convulsions; decrease in amount of urine or in frequency of urination; dizziness; fast heartbeat; headache; increased thirst; swelling of feet or lower legs; twitching of muscles; unusual tiredness or weakness); *hypertonia* (tense muscles); *hyperuricemia*; *hypesthesia* (increased skin sensitivity); *hypotension*; *hypotension, orthostatic* (dizziness or lightheadedness, especially when getting up from a lying or sitting position; low blood pressure); *ischemic attack, transient* (chest pain; fainting; fast heartbeat; increased sweating; nausea, continuing or severe; nervousness; shortness of breath; weakness); *leukopenia* (sore throat and fever or chills); *myasthenia* (weakness of muscles); *neuralgia*; *neuropathy*; *palpitation* (pounding heartbeat); *reflexes, decreased* (lack of coordination); *rupture, tendon* (bone pain; lower back or side pain; painful, swollen joints); *seizures*; *shock* (fainting); *synovitis*; *tachycardia* (fast heartbeat); *tenosynovitis*; *tremor* (aches, pains, or weakness of muscles; numbness or tingling of hands, legs, or feet; trembling and shaking; unusual feeling of burning or stinging of skin); *vasodilation* (transient decrease in blood pressure).

DIAGNOSTIC TESTS: *anemia*; *hematuria*; *hyperglycemia*; *hypernatremia*; *hyperuricemia*; *leukopenia*.

Secondary Actions or Rebound Effects: *hypertension* (dizziness, severe; headache, continuing) (rebound effect); *hypoglycemia reaction* (anxiety; behavior change similar to drunkenness; blurred vision; cold sweats; confusion; cool, pale skin; difficulty in concentrating; drowsiness; excessive hunger; fast heartbeat; headache; nausea; nervousness; nightmares; restless sleep; shakiness; slurred speech; unusual tiredness or weakness).

Silver Sulfadiazine (Topical)

Commercial name(s): *Flamazine*; *SSD*; *SSD AF*; *Silvadene*; *Thermazene*.

Category: Antibacterial (topical); Antifungal (topical).

Conventional indications: Burn wound infections (prophylaxis and treatment); Skin infections, bacterial, minor (treatment); Ulcer, dermal (treatment).

Primary Actions or Pathogenetic Symptoms

ABDOMEN: *impairment, hepatic function.*

KIDNEYS: *impairment, renal function; nephritis, interstitial* (bloody or cloudy urine, greatly decreased frequency of urination or amount of urine).

URINE: *crystalluria.*

SKIN: *discoloration, brownish-gray; itching; rash; erythema multiforme* (blistering, peeling, loosening of skin; red skin lesions, often with a purple center); *necrosis, skin* (blue-green to black skin discoloration; pain, redness, or sloughing of skin); *sensitivity to sunlight, increased.*

GENERALITIES: *burning feeling on treated area(s); allergic reactions; blood dyscrasias; erythema multiforme* (blistering, peeling, loosening of skin; red skin lesions, often with a purple center); *leukopenia* (chills; cough; decreased neutrophil count; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *Lyell's syndrome; proliferation, fungal, in and below the eschar* (intense itching of burn wounds); *Stevens-Johnson syndrome.*

DIAGNOSTIC TESTS: *crystalluria; hyperosmolality* (in infants, during therapy with silver sulfadiazine cream); *leukopenia.*

Simethicone (Oral-Local)

Commercial name(s): *Baby's Own Infant Drops; Degas; Extra Strength Maalox Anti-Gas; Extra Strength Maalox GRF Gas Relief Formula; Flatulex; Gas Relief; Gas-X; Gas-X Extra Strength; Genasyme; Maalox Anti-Gas; Maalox GRF Gas Relief Formula; Maximum Strength Gas Relief; Maximum Strength Mylanta Gas Relief; Maximum Strength Phazyme; My Baby Gas Relief Drops; Mylanta Gas; Mylanta Gas Relief; Mylicon Drops; Ovol; Ovol-160; Ovol-40; Ovol-80; Phazyme; Phazyme Drops; Phazyme-125; Phazyme-95*

Category: Antiflatulent; Diagnostic aid (gastroscopy; radiography of the bowel).

Conventional indications: Gas, gastrointestinal (treatment); Gastroscopy adjunct; Radiography, bowel, adjunct.

Primary Actions or Pathogenetic Symptoms

No side effects reported.

Sincalide (Systemic)

Commercial name(s): *Kinevac.*

Category: Cholecystokinetic; Diagnostic aid (gallbladder function; pancreatic function).

Conventional indications: Gallbladder disorders (diagnosis); Pancreas disorders (diagnosis); Ileus, postoperative (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

NOSE: *sneezing*.

STOMACH: **cramps; discomfort; nausea; pain; vomiting**.

ABDOMEN: *colic, gallbladder* (spasmogenic effect on the gallbladder muscle and bile ducts); **cramps, abdominal; discomfort, abdominal; pain, abdominal; urge to have bowel movement**.

RECTUM: *diarrhea*.

PERSPIRATION: *sweating, increased*.

SKIN: *flushing; redness*.

GENERALITIES: *allergic reaction* (shortness of breath, skin rash); *blood pressure, increase in; hypotension* (dizziness, lightheadedness, or fainting); *numbness*.

Sirolimus (Systemic)

Commercial name(s): *Rapamune*.

Category: Immunosuppressant.

Conventional indications: Transplant rejection, kidney (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety** (fear, nervousness); **confusion** (mood or mental changes); **depression** (discouragement, feeling sad or empty, irritability, lack of appetite, loss of interest or pleasure, tiredness, trouble concentrating, trouble sleeping); **emotional lability** (crying; depersonalization; dysphoria; euphoria; mental depression; paranoia; quick to react or overreact emotionally; rapidly changing moods).

VERTIGO: **dizziness; hypotension, postural** (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position); **syncope** (fainting).

HEAD: **headache; hirsutism** (increased hair growth).

EYE: **cataracts** (blindness; blurred vision; decreased vision); **conjunctivitis** (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing); **herpes simplex infection** (burning or stinging of skin; painful cold sores or blisters on eyes); *angioedema* (large, hive-like swelling on eyelids).

VISION: **abnormal vision** (changes in vision).

EAR: **otitis media** (earache; redness or swelling in ear); **pain, ear**.

HEARING: **deafness; tinnitus** (continuing ringing or buzzing or other unexplained noise in ears, hearing loss).

NOSE: **herpes simplex infection** (burning or stinging of skin; painful cold sores or blisters on nose); **rhinitis** (stuffy nose; runny nose; sneezing); **sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *epistaxis* (nosebleed).

FACE: **herpes simplex infection** (burning or stinging of skin; painful cold sores or blisters on lips); **hirsutism** (increased hair growth, especially on the face); *edema, facial* (swelling of the face); *angioedema* (large, hive-like swelling on face, lips).

MOUTH: **gingivitis** (bleeding gums; irritation in mouth; redness and swelling of gums; mouth ulcers); **hyperplasia, gum** (bleeding, tender, or enlarged gums); **moniliasis, oral**

(sore mouth or tongue; white patches in mouth and/or on tongue); **stomatitis** (swelling or inflammation of the mouth); **ulceration**; **angioedema** (large, hive-like swelling on tongue).

THROAT: dysphagia (difficulty swallowing); **esophagitis** (difficulty in swallowing, pain or burning in throat, chest pain, heartburn, vomiting, sores, ulcers, or white spots on lips or tongue or inside the mouth); **angioedema** (large, hive-like swelling on throat).

STOMACH: anorexia (loss of appetite, weight loss); **eructation** (belching, bloated full feeling, excess air or gas in stomach); **gastritis** (abdominal or stomach pain; burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion; diarrhea; loss of appetite; nausea; weakness); **gastroenteritis** (abdominal or stomach pain; burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion; diarrhea; loss of appetite; nausea; weakness); **nausea**; **vomiting**.

ABDOMEN: ascites (stomach pain and bloating); **enlarged abdomen**; **flatulence** (bloated full feeling; excess air or gas in stomach or intestines; passing gas); **hernia** (abdominal pain; lump in abdomen); **herpes zoster infection** (painful blisters on trunk of body); **ileus** (abdominal pain; severe constipation; severe vomiting); **pain, abdominal or pelvic**; **peritonitis** (abdominal or stomach pain; chills; fever; nausea or vomiting); **pancreatitis** (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); **hepatotoxicity** (abdominal pain or tenderness; clay colored stools; dark urine; decreased appetite; fever; headache; itching; loss of appetite; nausea and vomiting; skin rash; swelling of feet or lower legs; unusual tiredness or weakness; yellow eyes or skin); **necrosis, hepatic** (abdominal or stomach pain; black, tarry stools; chills; light-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin).

RECTUM: constipation; **diarrhea**.

BLADDER: dysuria (difficult or painful urination; burning while urinating); **frequency, urinary**; **incontinence, urinary** (loss of bladder control); **infection, urinary tract** (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); **nocturia** (waking to urinate at night; increased urge to urinate during the night); **oliguria** (decrease in amount of urine); **pain, bladder**; **retention, urinary** (decrease in urine volume; decrease in frequency of urination; difficulty in passing urine [dribbling]; painful urination).

KIDNEYS: hydronephrosis (swelling of face, hands, legs, and feet; cloudy urine); **infection, urinary tract** (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); **necrosis, tubular, kidney** (bloody or cloudy urine; difficult or painful urination; sudden decrease in amount of urine); **nephropathy, toxic** (bloody or cloudy urine; difficult or painful urination; sudden decrease in amount of urine); **pain, kidney**; **pyelonephritis** (chills; fever; frequent or painful urination; headache; stomach pain).

URINE: hematuria (blood in urine); **pyuria** (pus in the urine).

GENITALIA MALE: edema, scrotal (swelling of the scrotum); **herpes simplex infection** (burning or stinging of skin; painful cold sores or blisters on genitals); **impotence** (loss in sexual ability, desire, drive, or performance; decreased interest in sexual

intercourse; inability to have or keep an erection); **testis disorder**; *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: herpes simplex infection (burning or stinging of skin; painful cold sores or blisters on genitals); *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: asthma (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); **bronchitis** (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); **dyspnea** (shortness of breath); **hypoxia** (confusion; dizziness; fast heartbeat; shortness of breath; weakness); **infection, upper respiratory** (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat, body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **pneumonia** (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

COUGH: cough increased.

CHEST: asthma (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); **atelectasis** (coughing; difficult breathing; fever; rapid heartbeat); **bronchitis** (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); **congestive heart failure** (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing); **edema, lung** (chest pain; difficult, fast, noisy breathing, sometimes with wheezing; blue lips and fingernails; pale skin; increased sweating; coughing that sometimes produces a pink frothy sputum; shortness of breath; swelling in legs and ankles); **effusion, pleural** (chest pain; shortness of breath); **fibrillation, atrial** (irregular heartbeat); **herpes zoster infection** (painful blisters on trunk of body); **pain, chest; palpitation** (fast, irregular, pounding, or racing heartbeat or pulse); **pneumonia** (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); **tachycardia** (fast, pounding, or irregular heartbeat or pulse); *fibrosis, pulmonary* (fever; cough; shortness of breath); *lung disease, interstitial* (cough; difficult breathing; fever; shortness of breath); *pneumonitis* (chest pain; chills; cough; fever; general feeling of discomfort or illness; shortness of breath; thickening of bronchial secretions; troubled breathing).

BACK: herpes zoster infection (painful blisters on trunk of body); **pain, back.**

EXTREMITIES: arthralgia (difficulty in moving; muscle pain or stiffness; pain); **arthrosis** (degenerative disease of the joint); **cramps, leg; edema, peripheral** (swelling of hands, ankles, feet, or lower legs); **hypertonia** (excessive muscle tone, muscle tension or tightness; muscle stiffness); **hypotonia** (unusual weak feeling; loss of strength or energy; muscle pain or weakness); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **necrosis, bone** (pain in bones); **neuropathy** (burning, tingling, numbness or pain in the hands, arms, feet, or legs; sensation of pins and needles; stabbing pain); **osteoporosis** (pain in back, ribs, arms, or legs; decrease in height); **tetany** (abdominal cramps; confusion; convulsions; difficulty in breathing; irregular heartbeats; mood or mental changes; muscle cramps in hands, arms, feet, legs, or face; numbness and tingling around the mouth, fingertips, or feet; shortness of breath; tremor); **vascular disorder, peripheral** (cold hands and feet); *angioedema* (large, hive-like

swelling on hands, legs, feet); *lymphedema* (swelling of arms or legs; yellow nails lacking a cuticle; nails loose or detached).

SLEEP: insomnia (trouble in sleeping); **somnolence** (sleepiness or unusual drowsiness).

CHILL: chills.

FEVER: fever.

PERSPIRATION: sweating.

SKIN: acne; cellulitis (itching, pain, redness, swelling, tenderness, warmth on skin); **dermatitis, fungal** (blistering, crusting, irritation, itching, or reddening of skin; cracked, dry, scaly skin; swelling); **herpes simplex infection** (burning or stinging of skin; painful cold sores or blisters on lips, nose, eyes, or genitals); **herpes zoster infection** (painful blisters on trunk of body); **hirsutism** (increased hair growth); **hypertrophy, skin** (thickening of the skin); **pruritus** (itching skin); **purpura, thrombotic thrombocytopenic** (hemolytic-uremic syndrome) (change in mental status; dark or bloody urine; difficulty speaking; fever; pale color of skin; pinpoint red spots on skin; seizures; weakness; yellow eyes or skin); **rash; melanoma** (new mole; change in size, shape or color of existing mole; mole that leaks fluid or bleeds); **ulcer** (sores on skin).

GENERALITIES: immunosuppression; abscess (accumulation of pus; swollen, red, tender area of infection; fever); **acidosis** (drowsiness, fatigue, headache, nausea, troubled breathing, vomiting); **anemia** (unusual bleeding or bruising; unusual tiredness or weakness; trouble breathing on exertion); **arthralgia** (difficulty in moving; muscle pain or stiffness; pain); **arthrosis** (degenerative disease of the joint); **asthenia** (loss of energy or weakness); **Cushing's syndrome** (backache; blurred vision; loss of sexual desire or ability; facial hair growth in females; fractures; full or round face, neck, or trunk; increased thirst or urination; irritability; menstrual irregularities; muscle wasting; unusual tiredness or weakness); **dehydration** (confusion, decreased urination, dizziness, dry mouth, fainting, increase in heart rate, lightheadedness, rapid breathing, sunken eyes, thirst, unusual tiredness or weakness, wrinkled skin); **diabetes mellitus** (blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; loss of consciousness; nausea; stomachache; sweating; troubled breathing; unexplained weight loss; vomiting); **ecchymosis** (bruising; large, flat, blue or purplish patches in the skin); **edema, generalized** (swelling); **fibrillation, atrial** (irregular heartbeat); **flu syndrome** (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **hemorrhage** (bleeding gums; coughing up blood; difficulty in breathing or swallowing; dizziness; headache; increased menstrual flow or vaginal bleeding; nosebleeds; paralysis; prolonged bleeding from cuts; red or dark brown urine; red or black, tarry stools; shortness of breath); **herpes simplex infection** (burning or stinging of skin; painful cold sores or blisters on lips, nose, eyes, or genitals); **herpes zoster infection** (painful blisters on trunk of body); **hirsutism** (increased hair growth); **hypercholesteremia; hyperkalemia** (abdominal pain; confusion; irregular or slow heartbeat; nausea or vomiting; numbness or tingling around lips, hands, or feet; shortness of breath or trouble breathing; unusual tiredness or weakness; weakness or heaviness of legs; unexplained anxiety); **hyperlipidemia; hypertension; hypertonia** (excessive muscle tone, muscle tension or tightness; muscle stiffness); **hypervolemia** (blurred vision; cough; dizziness; fast or slow heartbeat; headache; rapid

breathing; shortness of breath; swelling of lower legs or arms; weight gain); **hypesthesia** (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); **hypokalemia** (convulsions; decreased urine output; fast or irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); **hypophosphatemia** (bone pain; convulsions; loss of appetite; muscle weakness; difficulty breathing; unusual tiredness or weakness); **hypotension, postural** (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position); **hypotonia** (unusual weak feeling; loss of strength or energy; muscle pain or weakness); **hypoxia; infection, upper respiratory** (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat, body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **leukocytosis** (chills; cough; eye pain; fever; general feeling of illness; headache; sore throat; unusual tiredness); **leukopenia** (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); **lymphadenopathy** (swollen, painful, or tender lymph glands in neck, armpit, or groin); **lymphoma** (black, tarry stools; general feeling of illness; swollen glands; weight loss, unusual; yellow skin and eyes); **malaise** (general feeling of discomfort or illness, unusual tiredness or weakness); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **necrosis, bone** (pain in bones); **neuropathy** (burning, tingling, numbness or pain in the hands, arms, feet, or legs; sensation of pins and needles; stabbing pain); **osteoporosis** (pain in back, ribs, arms, or legs; decrease in height); **palpitation** (fast, irregular, pounding, or racing heartbeat or pulse); **paresthesia** (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); **polycythemia** (abdominal pain; bleeding from gums or nose; dizziness; eye pain; headache; ringing in the ears; tiredness; weakness); **purpura, thrombotic thrombocytopenic (hemolytic-uremic syndrome)** (change in mental status; dark or bloody urine; difficulty speaking; fever; pale color of skin; pinpoint red spots on skin; seizures; weakness; yellow eyes or skin); **sepsis** (chills; confusion; dizziness; lightheadedness; fainting; fast heartbeat; fever; rapid, shallow breathing); **sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); **tachycardia** (fast, pounding, or irregular heartbeat or pulse); **tetany** (abdominal cramps; confusion; convulsions; difficulty in breathing; irregular heartbeats; mood or mental changes; muscle cramps in hands, arms, feet, legs, or face; numbness and tingling around the mouth, fingertips, or feet; shortness of breath; tremor); **thrombocytopenia** (unusual bleeding or bruising); **thromboembolism, venous** (pain in chest, groin, or legs, especially the calves; difficulty breathing; severe, sudden headache; slurred speech; sudden, unexplained shortness of breath; sudden loss of coordination; sudden, severe weakness or numbness in arm or leg; vision changes); **thrombophlebitis** (changes in skin color; pain, tenderness, swelling of foot or leg); **thrombosis** (tenderness, pain, swelling, warmth, skin discoloration, and prominent superficial veins over affected area); **tremor** (shaking or trembling); **vascular disorder, peripheral** (cold hands and feet); **vasodilation** (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling

faint, dizzy, or lightheadedness; sweating); **weight gain, unusual; weight loss; *hypotension*** (blurred vision; confusion; dizziness; faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); ***infections, Epstein-Barr virus*** (black, tarry stools; chest pain; chills; cough; difficult urination; fever; muscle pain; pale skin; shortness of breath; skin rash; sore throat; trouble breathing; tightness in chest; unusual bleeding or bruising; unusual tiredness or weakness; wheezing); ***infections, mycobacterial*** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); ***lymphocele; melanoma*** (new mole; change in size, shape or color of existing mole; mole that leaks fluid or bleeds); ***anaphylactic reaction*** (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); ***capillary leak syndrome*** (fever; low blood pressure; swelling of legs and feet; weight gain); ***healing, abnormal*** (fascial dehiscence and anastomotic disruption, including wound, vascular, airway, ureteral, biliary following transplant surgery); ***lymphedema*** (swelling of arms or legs; yellow nails lacking a cuticle; nails loose or detached); ***neutropenia*** (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); ***pancytopenia*** (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); ***vasculitis, hypersensitivity*** (chills; fever; sore throat; muscle aches, pains, or weakness; shortness of breath; troubled breathing; tightness in chest; wheezing).

DIAGNOSTIC TESTS: acidosis, metabolic; anemia; fibrillation, atrial; hematuria; hypercholesteremia; hyperkalemia; hyperlipidemia; hypokalemia; hypophosphatemia; hypoxia; leukocytosis; leukopenia; liver function tests, abnormal (lab results that show problems with liver); **polycythemia; pyuria; thrombocytopenia; neutropenia; pancytopenia.**

Skeletal Muscle Relaxants (Systemic)

Commercial name(s): *Antiflex; Banflex; Carbacot; Disipal; EZE-DS; Flexoject; Maolate; Mio-Rel; Myolin; Myotrol; Norflex; Orfro; Orphenate; Paraflex; Parafon Forte DSC; Relaxazone; Remular; Remular-S; Robaxin; Robaxin-750; Skelaxin; Soma; Strifon Forte DSC; Vanadom.*

Category: Skeletal muscle relaxant [Carisoprodol; Chlorphenesin; Chlorzoxazone; Metaxalone; Methocarbamol; Orphenadrine Citrate]; Parkinsonism therapy adjunct [Orphenadrine Hydrochloride].

Conventional indications: Spasm, skeletal muscle (treatment); Parkinsonism (treatment adjunct) [Orphenadrine hydrochloride].

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; depression, mental; clumsiness; dependence and abuse, psychological* [Carisoprodol]; *hallucinations.*

VERTIGO: dizziness; lightheadedness; fainting; hypotension, orthostatic [Carisoprodol].

HEAD: headache [more frequent with Metaxalone].

EYE: burning; angioedema (hive-like swellings, large, on eyelids); conjunctivitis and nasal congestion (stuffy nose and red or bloodshot eyes); pressure, intraocular, increased (eye pain) [Orphenadrine]; pupils, unusually large [Orphenadrine]; stinging; nystagmus (uncontrolled movements of eyes).

VISION: blurred vision [more frequent with Methocarbamol]; change in vision [more frequent with Methocarbamol]; double vision [more frequent with Methocarbamol].

NOSE: congestion, nasal, and conjunctivitis (stuffy nose and red or bloodshot eyes).

FACE: angioedema (hive-like swellings, large, on face, lips); flushing; redness.

MOUTH: dryness [Orphenadrine]; angioedema (hive-like swellings, large, on mouth, and/or tongue).

STOMACH: cramps [more frequent with Metaxalone]; heartburn; hiccups; irritation, gastrointestinal [more frequent with Metaxalone]; nausea [more frequent with Metaxalone]; pain [more frequent with Metaxalone]; vomiting [more frequent with Metaxalone]; bleeding, gastrointestinal (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds).

ABDOMEN: cramps, abdominal [more frequent with Metaxalone]; irritation, gastrointestinal [more frequent with Metaxalone]; pain, abdominal [more frequent with Metaxalone]; bleeding, gastrointestinal (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds); hepatotoxicity (yellow eyes or skin).

RECTUM: constipation; diarrhea; bleeding, gastrointestinal (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds).

BLADDER: urination, decreased or difficult [Orphenadrine].

RESPIRATION: allergic reaction, bronchospastic (shortness of breath, troubled breathing, tightness in chest, and/or wheezing).

CHEST: allergic reaction, bronchospastic (shortness of breath, troubled breathing, tightness in chest, and/or wheezing); heartbeat, fast or pounding; heartbeat, slow [parenteral dosage form; Methocarbamol; Orphenadrine].

EXTREMITIES: skeletal muscle relaxant [Carisoprodol, Chlorphenesin, Chlorzoxazone, Metaxalone, Methocarbamol, Orphenadrine Citrate]; weakness, muscle; clumsiness; unsteadiness.

SLEEP: drowsiness.

FEVER: fever, allergic.

SKIN: dermatitis, allergic (skin rash, hives, itching, and/or redness); eruptions, fixed drug, with cross-sensitivity to Meprobamate [Carisoprodol]; rashes, petechial [Chlorzoxazone]; erythema multiforme (fever with or without chills; muscle cramps or pain; skin rash; sores, ulcers, or white spots on lips or in mouth).

GENERALITIES: skeletal muscle relaxant [Carisoprodol; Chlorphenesin; Chlorzoxazone; Metaxalone; Methocarbamol; Orphenadrine Citrate]; anticholinergic effects (dryness of mouth [more frequent], confusion, difficult urination, constipation, unusually large pupils, blurred or double vision, weakness) [Orphenadrine]; ecchymoses [Chlorzoxazone]; heartbeat, fast or pounding; heartbeat, slow [parenteral dosage form; Methocarbamol; Orphenadrine]; hypotension, orthostatic [Carisoprodol]; pain at place of injection [Methocarbamol; Orphenadrine]; peeling at place of injection [Methocarbamol];

Orphenadrine]; *trembling*; *weakness* [Orphenadrine]; *weakness, muscle*; *agranulocytosis* (fever with or without chills; sores, ulcers, or white spots on lips or in mouth; sore throat); *anaphylactic or anaphylactoid reaction* (changes in facial skin color; skin rash, hives, and/or itching; fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing); *anemia* (unusual tiredness or weakness); *anemia, aplastic* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sores, ulcers, or white spots on lips or in mouth; swollen and/or painful glands; unusual bleeding or bruising; unusual tiredness or weakness); *anemia, hemolytic* (troubled breathing, exertional; unusual tiredness or weakness); *convulsions*; *eosinophilia*; *erythema multiforme* (fever with or without chills; muscle cramps or pain; skin rash; sores, ulcers, or white spots on lips or in mouth); *idiosyncratic reaction* (agitation, ataxia, confusion, disorientation, dizziness, euphoria, extreme weakness, speech disturbances, temporary loss of vision or other vision disturbances, and transient quadriplegia) [Carisoprodol]; *leukopenia* (usually asymptomatic; rarely, fever or chills, cough or hoarseness, lower back or side pain, painful or difficult urination); *pancytopenia* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sores, ulcers, or white spots on lips or in mouth; swollen and/or painful glands; unusual bleeding or bruising; unusual tiredness or weakness); *shock, anaphylactic, with sudden, severe decrease in blood pressure and collapse* [Carisoprodol]; *thrombocytopenia* (usually asymptomatic; rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *thrombophlebitis* (local pain, tenderness, heat, redness, swelling at site of affected vein) [parenteral administration; Methocarbamol; Orphenadrine].

DIAGNOSTIC TESTS: *agranulocytosis*; *anemia*; *anemia, aplastic*; *anemia, hemolytic*; *eosinophilia*; *leukopenia*; *pancytopenia*; *thrombocytopenia*.

Secondary Actions or Rebound Effects: *stimulation, paradoxical* (excitement, nervousness, restlessness, irritability, trouble in sleeping) [more frequent with Metaxalone]; *withdrawal symptoms* (abdominal cramps, insomnia, chills, headache, and nausea) [Carisoprodol].

Sodium Benzoate and Sodium Phenylacetate (Systemic)

Commercial name(s): *Ammonul*.

Category: Antihyperammonemic.

Conventional indications: Hyperammonemia (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: impairment, mental (confusion or excitement; mental depression or anxiety; nightmares or unusually vivid dreams); *agitation* (anxiety; nervousness; restlessness; irritability; dry mouth; shortness of breath; hyperventilation; trouble sleeping; irregular heartbeats; shaking); *coma* (change in consciousness; loss of consciousness); obtundation in the absence of hyperammonemia (mental changes; not alert; trouble with coordination).

HEAD: edema, brain (confusion; headache; problems with movement, walking or speech; convulsions; vomiting); *hematoma, subdural* (blurred vision; irregular heartbeat; nausea and vomiting; severe headache); *pressure, intracranial, increased* (blurred vision; bulging soft spot on head of an infant; headache; insomnia; loss of appetite; blurred vision; change in ability to see colors, especially blue or yellow; vomiting).

STOMACH: vomiting; nausea; ulcers, peptic, exacerbation of.

ABDOMEN: distension, abdominal (swelling of abdominal or stomach area; full or bloated feeling or pressure in the stomach).

RECTUM: diarrhea.

BLADDER: infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: renal disorders (decrease in urine output or decrease in urine-concentrating ability; cloudy urine); *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

RESPIRATION: disorders, respiratory (difficulty in breathing); *distress, respiratory* (shortness of breath; troubled breathing; tightness in chest; wheezing); *failure, respiratory* (blue lips, fingernails, or skin; difficult or troubled breathing; irregular, fast or slow, or shallow breathing; shortness of breath); *respiration, Kussmaul* (abnormally slow deep breathing); hyperventilation (deep or fast breathing with dizziness; numbness to feet, hands and around mouth).

CHEST: cardiac disorders (chest pain or discomfort; fast, irregular, or pounding heart beat; shortness of breath); *bradycardia* (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); pneumonitis (chest pain; chills; cough; fever; general feeling of discomfort or illness; shortness of breath; thickening of bronchial secretions; troubled breathing).

EXTREMITIES: vascular disorder (changes in skin color; cold hands and feet; pain, redness, or swelling in arm or leg); *clonus* (uncontrolled jerking movement).

FEVER: pyrexia (fever).

SKIN: skin disorders; vascular disorder (changes in skin color; cold hands and feet; pain, redness, or swelling in arm or leg); *blister; pruritus* (itching skin); *rash, maculopapular* (rash with flat lesions or small raised lesions on the skin).

GENERALITIES: convulsions; hyperglycemia (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); **hypokalemia** (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); **infections** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **vascular disorder** (changes in skin color; cold hands and feet; pain, redness, or swelling in arm or leg); *acidosis, metabolic* (confusion; drowsiness; muscle tremors; nausea; rapid, deep breathing; restlessness; stomach cramps; unusual tiredness or weakness); *anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); *coagulation, intravascular, disseminated* (blood in stools; blood in urine; bruising; confusion; coughing or vomiting blood; persistent bleeding or oozing from puncture sites, mouth, or nose; rash; shortness of

breath); *coma* (change in consciousness; loss of consciousness); *hypocalcemia* (abdominal cramps; confusion; convulsions; difficulty in breathing; irregular heartbeats; mood or mental changes; muscle cramps in hands, arms, feet, legs, or face; numbness and tingling around the mouth, fingertips, or feet; shortness of breath; tremor); *hypotension* (blurred vision, confusion, dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); *injection site reaction* (bleeding, blistering, burning, coldness, discoloration of skin, feeling of pressure, hives, infection; inflammation, itching, lumps, numbness, pain, rash, redness, scarring, soreness, stinging, swelling, tenderness, tingling, ulceration, or warmth at site); *injury, poisoning and procedural complications*; *alkalosis, respiratory, mild*; *bradycardia* (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); *clonus* (uncontrolled jerking movement); *extravasation, injection site*; *hemorrhage, injection site*; *hypercapnia* (headache; restlessness; shakiness; sleepiness; slow to respond; slurred speech; unconsciousness); *acidosis, severe, compensated* (shortness of breath or troubled breathing); *collapse, cardiovascular* (chest pain or discomfort; cold, clammy, pale skin; confusion; dizziness; irregular heartbeats; shortness of breath; slow heart rate; weakness); *death* (no pulse; no blood pressure; no breathing); *encephalopathy* (agitation; back pain; blurred vision; coma; confusion; dizziness; drowsiness; fever; hallucinations; headache; hypernatremia (dizziness; fast heartbeat; high blood pressure; irritability; muscle twitching; restlessness; seizures; swelling of feet or lower legs; weakness); *hyperosmolarity* (dizziness; fast heartbeat; high blood pressure; irritability; muscle twitching; restlessness; seizures; swelling of feet or lower legs; weakness); irritability; mood or mental changes; seizures; stiff neck; unusual tiredness or weakness; vomiting); *sepsis* (chills; confusion; dizziness; lightheadedness; fainting; fast heartbeat; fever; rapid, shallow breathing).

DIAGNOSTIC TESTS: *hypoammonemia*; *hypokalemia*; *acidosis, metabolic*; *anemia*; *hypocalcemia*; *hypercapnia*; *hypernatremia*; *hyperosmolarity*.

Secondary Actions or Rebound Effects: *hyperammonemia* (increase in frequency of seizures; loss of appetite; continuing nausea or vomiting; swelling of face; tiredness and weakness; yellow eyes or skin).

Sodium Bicarbonate (Systemic)

Commercial name(s): *Arm and Hammer Pure Baking Soda*; *Bell/ans*; *Citrocarbonate*; *Soda Mint*.

Category: Alkalizer (systemic; urinary) [Sodium Bicarbonate Injection USP; Sodium Bicarbonate Oral Powder USP; Sodium Bicarbonate Tablets USP]; Antacid [Effervescent Sodium Bicarbonate; Sodium Bicarbonate Oral Powder USP; Sodium Bicarbonate Tablets USP]; Electrolyte replenisher [Sodium Bicarbonate Injection USP].

Conventional indications: Metabolic acidosis (treatment) [Oral sodium bicarbonate]; Renal calculi, uric acid (prophylaxis) [Oral sodium bicarbonate]; Hyperacidity (treatment); Diarrhea (treatment adjunct) [Parenteral sodium bicarbonate]; Toxicity, nonspecific (treatment) [Parenteral sodium bicarbonate].

Primary Actions or Pathogenetic Symptoms

STOMACH: *alkalizer* [Sodium Bicarbonate Injection USP; Sodium Bicarbonate Oral Powder USP; Sodium Bicarbonate Tablets USP]; *cramps; thirst, increased*.

URINE: *alkalizer* [Sodium Bicarbonate Injection USP; Sodium Bicarbonate Oral Powder USP; Sodium Bicarbonate Tablets USP].

EXTREMITIES: *swelling of feet or lower legs* [large doses].

GENERALITIES: *hypokalemia* (dryness of mouth; increased thirst; irregular heartbeat; mood or mental changes; muscle cramps or pain; weak pulse) [excessive parenteral administration]; alkalosis, metabolic (mood or mental changes; muscle pain or twitching; nervousness or restlessness; slow breathing; unpleasant taste; unusual tiredness or weakness); hypercalcemia associated with milk-alkali syndrome (frequent urge to urinate; continuing headache; continuing loss of appetite; nausea or vomiting; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *hypokalemia*; alkalosis, metabolic; hypercalcemia associated with milk-alkali syndrome.

Sodium Chloride (Ophthalmic)

Commercial name(s): *Muro 128*.

Category: Antiedemic (cornea).

Conventional indications: Edema, corneal (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: burning, temporary; irritation, temporary.

Sodium Chloride (Parenteral-Local)

Category: Abortifacient.

Conventional indications: Abortion, elective.

Primary Actions or Pathogenetic Symptoms

GENITALIA FEMALE: *abortion; abortion, incomplete* (passing pieces of tissue from uterus; hemorrhage; severe endometritis); *embolism, amniotic fluid* (anxiety; burning pain in lower abdomen; chest pain, severe; chills; coughing; convulsions; feeling of heat; feeling of warmth in lips and tongue; headache, severe; nervousness; numbness of the fingertips; pain in lower back, pelvis, or stomach; ringing in the ears; shortness of breath; sudden thirst or salty taste; sweating) (inadvertent intravascular, myometrial, or intraperitoneal administration or excessive quantity administered); *endometritis* (abdominal cramping; chills; shivering; fever; foul-smelling vaginal discharge; pain in lower abdomen); *infection, pelvic* (abdominal cramping; chills; shivering; fever; foul-smelling vaginal discharge; pain in lower abdomen); *placenta, retained* (increase in uterine bleeding).

CHEST: *embolism, pulmonary* (anxiety; burning pain in lower abdomen; chest pain, severe; chills; coughing; convulsions; feeling of heat; feeling of warmth in lips and tongue;

headache, severe; nervousness; numbness of the fingertips; pain in lower back, pelvis, or stomach; ringing in the ears; shortness of breath; sudden thirst or salty taste; sweating) (inadvertent intravascular, myometrial, or intraperitoneal administration or excessive quantity administered).

FEVER: *hyperpyrexia* (high fever).

GENERALITIES: *blood loss, excessive; bleeding at site of abdominal injection or injection site for intravenous solutions; deaths, septicemia-induced; electrolyte imbalance, including hypernatremia* (confusion; unconsciousness; weakness); *embolism, amniotic fluid* (anxiety; burning pain in lower abdomen; chest pain, severe; chills; coughing; convulsions; feeling of heat; feeling of warmth in lips and tongue; headache, severe; nervousness; numbness of the fingertips; pain in lower back, pelvis, or stomach; ringing in the ears; shortness of breath; sudden thirst or salty taste; sweating) (inadvertent intravascular, myometrial, or intraperitoneal administration or excessive quantity administered); *hypertension* (headache, dull; nervousness); *hypotension* (dizziness; vision problems); *infection at injection site* (redness at place of injection).

DIAGNOSTIC TESTS: *electrolyte imbalance, including hypernatremia.*

Sodium Chromate Cr 51 (Systemic)

Commercial name(s): *Chromitope.*

Category: Diagnostic aid, radioactive (red blood cell disease; gastrointestinal bleeding; platelet survival).

Conventional indications: Red blood cells, labeling of; Platelets, labeling of.

Primary Actions or Pathogenetic Symptoms

Currently, there are no known side/adverse effects associated with the use of sodium chromate Cr 51 as a diagnostic aid.

Sodium Fluoride (Systemic)

Commercial name(s): *Flozenges; Fluor-A-Day; Fluoritab; Fluoritabs; Fluorodex; Fluorosol; Flura; Flura-Drops; Flura-Loz; Karidium; Luride; Luride Lozi-Tabs; Luride-SF Lozi-Tabs; PDF; Pedi-Dent; Pediaflor; Pharmaflur; Pharmaflur 1.1; Pharmaflur df; Phos-Flur; Solu-Flur.*

Category: Dental caries prophylactic; Nutritional supplement (mineral).

Conventional indications: Dental caries (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: excitement, unusual.

VERTIGO: faintness.

EYE: watery eyes.

MOUTH: *ulceration of oral mucous membranes* (sores in mouth and on lips); watering, increased.

TEETH: discoloration of teeth, white, brown, or black; stiffness of teeth.

STOMACH: cramps; nausea; pain; upset stomach; vomit, bloody; vomiting.

RECTUM: diarrhea.

STOOL: black, tarry stools.

RESPIRATION: shallow breathing.

CHEST: arrhythmias, cardiac.

EXTREMITIES: fluorosis, skeletal; osteomalacia; osteosclerosis; pain and aching of bones; tetany.

SLEEP: drowsiness.

GENERALITIES: arrhythmias, cardiac; death; fluorosis, skeletal; hypocalcemia; osteomalacia; osteosclerosis; pain and aching of bones; tetany; tremors; weakness.

DIAGNOSTIC TESTS: electrolyte disturbances; hypocalcemia.

Sodium Iodide (Systemic)

Commercial name(s): *Iodopen*.

Category: Nutritional supplement (mineral); Antihyperthyroid agent.

Conventional indications: Iodine deficiency (prophylaxis and treatment); Thyrotoxicosis crisis (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache, severe.*

FACE: *angioedema* (swelling of the face, lips).

MOUTH: *angioedema* (swelling of the tongue); *burning of mouth; soreness of gums; taste, metallic; watering, increased.*

TEETH: *soreness of teeth.*

THROAT: *angioedema* (swelling of the throat); *burning of throat.*

EXTERNAL THROAT: *hypothyroidism.*

STOMACH: *irritation, gastric.*

EXTREMITIES: *angioedema* (swelling of the arms, legs); *arthralgia* (joint pain)

SKIN: *lesions.*

GENERALITIES: *hypothyroidism; arthralgia* (joint pain); *eosinophilia; swelling of lymph nodes; iodism* (burning of mouth or throat; gastric irritation; increased watering of mouth; metallic taste; severe headache; skin lesions; soreness of teeth and gums) (prolonged use).

DIAGNOSTIC TESTS: *eosinophilia.*

Sodium Iodide I 123 (Systemic)

Other commonly used names: Iodine-123.

Commercial name(s): *ARI Sodium Iodide (I123) 1-12 MBq, ARI Sodium Iodide (I123) 100-750 MBq.*

Category: Diagnostic aid, radioactive (thyroid disorders).

Conventional indications: Thyroid function studies; Thyroid imaging, radionuclide.

Primary Actions or Pathogenetic Symptoms

HEAD: *headache.*

STOMACH: *nausea; vomiting.*

SKIN: *hives; itching; rash.*

Sodium Iodide I 131 (Systemic - Diagnostic)

Other commonly used names: Radioactive iodine; Radioiodide.

Commercial name(s): *Iodotope.*

Category: Diagnostic aid, radioactive (thyroid disorders).

Conventional indications: Thyroid function studies; Thyroid imaging, radionuclide.

Primary Actions or Pathogenetic Symptoms

HEAD: *headache.*

STOMACH: *nausea; vomiting.*

SKIN: *hives; itching; rash.*

Sodium Iodide I 131 (Systemic - Therapeutic)

Commercial name(s): *Iodotope.*

Category: Antihyperthyroid agent; Antineoplastic.

Conventional indications: Hyperthyroidism (treatment); Carcinoma, thyroid (treatment).

Primary Actions or Pathogenetic Symptoms

MOUTH: *sialadenitis, radiation, following treatment of thyroid carcinoma* (tenderness of salivary glands); *taste, temporary loss of, following treatment of thyroid carcinoma.*

EXTERNAL THROAT: *hypothyroidism* (changes in menstrual periods; clumsiness; coldness; drowsiness; dry, puffy skin; headache; listlessness; muscle aches; temporary thinning of hair [may occur 2 to 3 months after treatment]; unusual tiredness or weakness; weight gain); *thyroiditis, radiation* (neck tenderness or swelling or sore throat); *hyperthyroid state, exaggerated, following treatment of hyperthyroidism* (excessive sweating, fast heartbeat, fever, palpitations, unusual irritability or unusual tiredness).

STOMACH: *gastritis, radiation, following treatment of thyroid carcinoma* (temporary nausea and vomiting).

GENERALITIES: *hypothyroidism* (changes in menstrual periods; clumsiness; coldness; drowsiness; dry, puffy skin; headache; listlessness; muscle aches; temporary thinning of hair [may occur 2 to 3 months after treatment]; unusual tiredness or weakness; weight gain); *hyperthyroid state, exaggerated, following treatment of hyperthyroidism* (excessive sweating, fast heartbeat, fever, palpitations, unusual irritability or unusual tiredness); *leukopenia, following treatment of thyroid carcinoma* (cough or hoarseness, fever or chills, lower back or side pain, painful or difficult urination); *thrombocytopenia, following treatment of thyroid carcinoma* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin).

DIAGNOSTIC TESTS: *leukopenia, following treatment of thyroid carcinoma; thrombocytopenia, following treatment of thyroid carcinoma.*

Sodium Nitrite (Systemic)

Other commonly used names: Nitrous acid sodium salt.

Category: Antidote (to cyanide poisoning).

Conventional indications: Toxicity, cyanide (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: coma.

VERTIGO: dizziness, extreme; fainting.

HEAD: headache.

STOMACH: nausea; vomiting.

RESPIRATION: cyanosis (bluish fingernails, lips, or skin); shortness of breath.

CHEST: tachycardia.

EXTREMITIES: cyanosis (bluish fingernails, lips, or skin).

GENERALITIES: hypotension; vasodilation, excessive [rapid administration]; coma; cyanosis (bluish fingernails, lips, or skin); tachycardia; tiredness or weakness, unusual.

Sodium Oxybate (Systemic)

Commercial name(s): Xyrem.

Category: Anticatataplectic.

Conventional indications: Cataplexy (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: amnesia (loss of memory; problems with memory); anxiety (fear; nervousness); confusion; depression (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); nervousness; thinking, abnormal; coma; confusional, agitated combative state; consciousness, depressed; psychomotor skills, impaired (generalized slowing of mental and physical activity).

VERTIGO: dizziness.

HEAD: headache.

VISION: amblyopia (blurred vision; change in vision; impaired vision); blurred vision.

NOSE: rhinitis (stuffy nose; runny nose; sneezing); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

THROAT: pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: dyspepsia (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); nausea; vomiting.

ABDOMEN: pain, abdominal.

RECTUM: diarrhea; incontinence (inability to hold bowel movement).

BLADDER: incontinence, urinary (loss of bladder control).

GENITALIA FEMALE: dysmenorrhea (pain; cramps; heavy bleeding).

RESPIRATION: apnea (bluish lips or skin, not breathing); Cheyne Stokes respiration (alternating periods of shallow and deep breathing).

CHEST: bradycardia (chest pain or discomfort; lightheadedness, dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness).

BACK: pain, back.

EXTREMITIES: contraction, muscular; myasthenia (loss of strength or energy; muscle pain or weakness); *cramps, muscle; tremor* (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet); ataxia (shakiness and unsteady walk; trembling, or other problems with muscle control or coordination); psychomotor skills, impaired (generalized slowing of mental and physical activity).

SLEEP: sleep disorder; sleepwalking; somnolence (sleepiness or unusual drowsiness); *insomnia* (sleeplessness; trouble sleeping; unable to sleep) (rebound effect?).

DREAMS: dreams, abnormal.

FEVER: hypothermia (clumsiness; confusion; drowsiness; low body temperature; muscle aches or weakness; shivering; sleepiness; weak or feeble pulse).

PERSPIRATION: sweating; diaphoresis (increased sweating).

GENERALITIES: contraction, muscular; asthenia (lack or loss of strength); **flu syndrome** (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **hypesthesia** (burning, crawling, itching, numbness, prickling, “pins and needles” or tingling feelings); **hypertension** (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **infection, viral** (chills; cough or hoarseness; fever; cold flu-like symptoms); **myasthenia** (loss of strength or energy; muscle pain or weakness); **pain; sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *cramps, muscle; death; tremor* (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet); bradycardia (chest pain or discomfort; lightheadedness, dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); coma; hypothermia (clumsiness; confusion; drowsiness; low body temperature; muscle aches or weakness; shivering; sleepiness; weak or feeble pulse); seizures, tonic-clonic and myoclonus (convulsions).

Secondary Actions or Rebound Effects: *lethargy* (unusual drowsiness; dullness; tiredness; weakness or feeling of sluggishness); *psychosis* (feeling that others can hear your thoughts; feeling that others are watching you or controlling your behavior; feeling, seeing, or hearing things that are not there; severe mood or mental changes; unusual behavior); hypotonia, muscular (unusual weak feeling loss of strength or energy muscle pain or weakness);

Sodium Phenylbutyrate (Systemic)

Commercial name(s): *Buphenyl*.

Category: Antihyperammonemic.

Conventional indications: Urea cycle disorders (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental*.

VERTIGO: *syncope* (fainting).

HEAD: *headache*.

FACE: *edema* (swelling of face).

MOUTH: *taste, changes in*.

STOMACH: *appetite, decreased*; *gastritis* (stomach pain); *nausea*; *vomiting*.

ABDOMEN: *pain, abdominal*.

RECTUM: *bleeding, rectal*; *constipation*.

GENITALIA FEMALE: **amenorrhea** (lack of menses or irregular menstruation); **menstrual dysfunction** (lack of menses or irregular menstruation).

CHEST: *arrhythmias, cardiac* (fast, slow, or irregular heartbeat).

EXTREMITIES: *edema* (swelling of feet or lower legs).

SKIN: *rash*.

GENERALITIES: **acidosis, metabolic** (increased frequency of breathing; nausea and vomiting; unusual tiredness); **alkalosis, metabolic** (mood or mental changes; muscle pain or twitching; nervousness or restlessness; slow breathing; unpleasant taste; unusual tiredness or weakness); **anemia** (unusual tiredness or weakness); **hypoalbuminemia** (lower back, side, or stomach pain; swelling of feet or lower legs); **hypophosphatemia** (unusual tiredness or weakness); *body odor, strong*; *hyperuricemia* (joint pain; lower back, side, or stomach pain; swelling of feet or lower legs); *leukopenia* (chills; fever; sore throat); *thrombocytopenia* (unusual bleeding or bruising); *arrhythmias, cardiac* (fast, slow, or irregular heartbeat); *ecchymosis* (unusual bleeding or bruising); *edema* (swelling of face; swelling of feet or lower legs; unusual weight gain); *hypernatremia* (dizziness; fast heartbeat; increased blood pressure; irritability; muscle twitching; restlessness; seizures; swelling of feet or lower legs; unusual weakness); *hyperphosphatemia* (rebound effect?); *hypokalemia* (dryness of mouth; increased thirst; irregular heartbeat; mood or mental changes; muscle cramps or pain; weak pulse); *leukocytosis* (rebound effect?); *neurotoxicity* (fatigue, lightheadedness, headache, changes in taste or hearing, disorientation, impaired memory); *thrombocytosis*; *weight gain, unusual*.

DIAGNOSTIC TESTS: *hypoammonemia*; **acidosis, metabolic**; **alkalosis, metabolic**; **anemia**; **hypoalbuminemia**; **hypophosphatemia**; *hyperuricemia*; *leukopenia*; *thrombocytopenia*; *hyperchloremia*; *hypernatremia*; *hyperphosphatemia*; *hypokalemia*; *leukocytosis*.

Sodium Phosphate P 32 (Systemic)

Commercial name(s): *Phoslax*; *Phosphates Solution*.

Category: Antineoplastic.

Conventional indications: Polycythemia rubra vera (treatment); Leukemia, chronic myelocytic (treatment); Leukemia, chronic lymphocytic (treatment); Thrombocythemia, essential (treatment); Bone lesions, metastatic (treatment).

Primary Actions or Pathogenetic Symptoms

EXTREMITIES: *pain, bone, transient increase in* (in patients pretreated with testosterone).

GENERALITIES: **pancytopenia, following treatment of bone pain** (diarrhea; fever; nausea; vomiting); *anemia; leukemia, acute, following therapy with sodium phosphate P32* (in patients with polycythemia vera); *leukopenia; pain, bone, transient increase in* (in patients pretreated with testosterone); *thrombocytopenia*.

DIAGNOSTIC TESTS: **pancytopenia; anemia; leukopenia; thrombocytopenia.**

Sodium Polystyrene Sulfonate (Local)

Commercial name(s): *K-Exit; Kayexalate; Kionex; PMS-Sodium Polystyrene Sulfonate; SPS Suspension.*

Category: Antineoplastic.

Conventional indications: Hyperkalemia (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: **appetite, loss of; nausea; vomiting.**

ABDOMEN: *necrosis, colonic.*

RECTUM: **constipation; impaction, fecal** (severe stomach pain with nausea and vomiting).

GENERALITIES: *hypocalcemia* (abdominal and muscle cramps); *hypokalemia* (confusion with irritability; delayed thought processes; irregular heartbeat; severe muscle weakness); *retention, sodium* (decrease in urination; swelling of hands, feet, or lower legs; weight gain).

DIAGNOSTIC TESTS: *hypocalcemia; hypokalemia.*

Sodium Tetradecyl Sulfate (Systemic)

Commercial name(s): *Sotradecol.*

Category: Sclerosing agent.

Conventional indications: Varicose veins, small uncomplicated (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache.*

STOMACH: *nausea; vomiting.*

RESPIRATION: *asthma* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing).

CHEST: *asthma* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *embolism, pulmonary* (anxiety; chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness).

FEVER: *hayfever*.

SKIN: *hives* (raised red swellings on the skin, lips, tongue, or in the throat); *necrosis* (peeling or sloughing of skin); *urticaria, local* (hives or welts itching redness of skin skin rash).

GENERALITIES: *allergic reactions* (burning; itching; nausea; redness; skin rash; vomiting); *discoloration of sclerosed vein segment, permanent*; *extravasation* (pale skin at site of injection; pain or redness at site of injection); *pain, local*; *shock, anaphylactic* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *thrombosis, deep vein* (pain, redness, or swelling in arm or leg); *ulceration at site of injection*.

Sodium Thiosulfate (Systemic)

Other commonly used names: Sodium hyposulfite; Hyposulphite of soda.

Commercial name(s): -

Category: Antidote (to cyanide poisoning); Antineoplastic adjunct.

Conventional indications: Toxicity, cyanide (treatment adjunct); Toxicity, cyanide, sodium nitroprusside-induced (prophylaxis); Nephrotoxicity, cisplatin-induced (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: psychotic behavior (agitation; delusions; hallucinations).

VISION: blurred vision.

HEARING: tinnitus (ringing in the ears).

STOMACH: nausea; vomiting.

EXTREMITIES: arthralgias (pain in the joints); cramps, muscle; hyperreflexia.

GENERALITIES: arthralgias (pain in the joints); death; hyperreflexia.

Solifenacin (Systemic)

Commercial name(s): *VESIcare*.

Category: Antispasmodic (urinary).

Conventional indications: Bladder hyperactivity (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); confusion; delirium; hallucinations.

VERTIGO: *dizziness*.

EYE: *dryness*; pain, eye; pupils, fixed and dilated.

VISION: *blurred vision*.

NOSE: dryness.

FACE: flushing; redness.

MOUTH: dryness.

THROAT: *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); dryness.

STOMACH: *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); *nausea*; *pain, upper abdominal* (upper stomach pain); *vomiting*.

ABDOMEN: *pain, upper abdominal* (upper stomach pain).

RECTUM: *constipation* (difficulty having a bowel movement [stool]).

BLADDER: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *retention, urinary* (decrease in urine volume decrease in frequency of urination difficulty in passing urine [dribbling] painful urination); urination, difficult.

KIDNEYS: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

RESPIRATION: troubled breathing.

COUGH: *cough*.

CHEST: heartbeat, fast.

EXTREMITIES: *edema, lower limb* (swelling of the legs).

SLEEP: drowsiness.

SKIN: dryness.

GENERALITIES: *fatigue* (unusual tiredness or weakness); *hypertension* (blurred vision; dizziness; nervousness; headache pounding in the ears; slow or fast heartbeat); *influenza* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); anticholinergic effects, intolerable (fixed and dilated pupils; blurred vision; failure of heel-to-toe exam; tremors; dry skin); anticholinergic effects, severe (blurred vision; dizziness; drowsiness; confusion; delirium or hallucinations; nausea; vomiting; constipation; difficult urination; eye pain; dry eyes, mouth, nose, or throat; flushing or redness of face; troubled breathing; fast heartbeat); heartbeat, fast; tremors.

Sorafenib (Systemic)

Commercial name(s): *Nexavar*.

Category: Antineoplastic.

Conventional indications: Carcinoma, advanced renal (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); *dysphasia* (loss of ability to use or understand speech or language).

HEAD: *alopecia* (hair loss; thinning of hair); **headache;** *folliculitis* (burning, itching, and pain in hairy areas; pus at root of hair).

HEARING: *tinnitus* (continuing ringing or buzzing or other unexplained noise in ears; hearing loss).

NOSE: *rhinorrhea* (runny nose).

FACE: *flushing* (feeling of warmth, redness of the face).

MOUTH: *mucositis* (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth); *pain, mouth;* *stomatitis* (swelling or inflammation of the mouth).

THROAT: *dysphagia* (loss of ability to use or understand speech or language); *hoarseness* (rough, scratchy sound to voice).

EXTERNAL THROAT: *flushing* (feeling of warmth, redness of the neck); *hypothyroidism* (constipation; depressed mood; dry skin and hair; feeling cold; hair loss; hoarseness or husky voice; muscle cramps and stiffness; slowed heartbeat; weight gain; unusual tiredness or weakness).

STOMACH: *anorexia* (loss of appetite; weight loss); **nausea; pain, abdominal** (stomach pain); **vomiting;** *appetite, decreased;* *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); *gastritis* (burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion); *reflux, gastrointestinal* (bloating; diarrhea; gas; heartburn; indigestion; loss of appetite; nausea; stomach pain; vomiting).

ABDOMEN: **pain, abdominal** (stomach pain); *bilirubin, increased* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); *reflux, gastrointestinal* (bloating; diarrhea; gas; heartburn; indigestion; loss of appetite; nausea; stomach pain; vomiting).

RECTUM: **constipation** (difficulty having a bowel movement [stool]); **diarrhea;** *mucositis* (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth).

GENITALIA MALE: *erectile dysfunction* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection).

RESPIRATION: **dyspnea** (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

COUGH: **cough.**

CHEST: *flushing* (feeling of warmth, redness of the upper chest); *gynecomastia* (swelling of the breasts or breast soreness in both females and males); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); *ischemia, myocardial* (chest pain or discomfort; nausea; pain or discomfort in arms, jaw, back or neck; shortness of breath; sweating; vomiting).

EXTREMITIES: hand-foot skin reaction (blistering, peeling, redness, and/or swelling of palms of hands or bottoms of feet; numbness, pain, tingling, or unusual sensations in palms of hands or bottoms of feet); **neuropathy-sensory** (burning, tingling, numbness or pain in the hands, arms, feet, or legs; sensation of pins and needles; stabbing pain); **pain, joint; arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); *flushing* (feeling of warmth, redness of the arms); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *pain, bone or muscle*.

FEVER: *pyrexia* (fever).

PERSPIRATION: sweating, increased.

SKIN: alopecia (hair loss; thinning of hair); **dryness; pruritus** (itching skin); **rash; acne; dermatitis, exfoliative** (cracks in the skin; loss of heat from the body; red, swollen skin, scaly skin); *eczema* (skin rash encrusted, scaly and oozing); *erythema* (flushing, redness of skin; unusually warm skin); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *flushing* (feeling of warmth, redness of the face, neck, arms and occasionally, upper chest); dermatologic events (flushing; impaired wound healing; increased sweating; suppressed reaction to skin tests; thin, fragile skin); thin, fragile skin.

GENERALITIES: alopecia (hair loss; thinning of hair); **fatigue** (unusual tiredness or weakness); **hemorrhage** (bleeding gums; coughing up blood; difficulty in breathing or swallowing; dizziness; headache; increased menstrual flow or vaginal bleeding; nosebleeds; paralysis; prolonged bleeding from cuts; red or dark brown urine; red or black, tarry stools; shortness of breath); **hypertension** (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); **neuropathy-sensory** (burning, tingling, numbness or pain in the hands, arms, feet, or legs; sensation of pins and needles; stabbing pain); **pain, joint; anemia** (pale skin, troubled breathing with exertion, unusual bleeding or bruising, unusual tiredness or weakness); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *asthenia* (lack or loss of strength); *bilirubin, increased* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *dehydration* (confusion; decreased urination; dizziness; dry mouth; fainting; increase in heart rate; lightheadedness; rapid breathing; sunken eye; thirst; unusual tiredness or weakness; wrinkled skin); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *flushing* (feeling of warmth, redness of the face, neck, arms and occasionally, upper chest); *hypersensitivity reactions* (difficulty in breathing and/or swallowing; fever; hives; nausea; reddening of the skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness); *hypertensive crisis* (severe chest pain; enlarged pupils; fast or slow heartbeat; severe headache; increased sensitivity of eyes to light; increased sweating, possibly with fever or cold; clammy skin; stiff or sore neck); *hyponatremia* (coma; confusion; convulsions; decreased urine output; dizziness; fast or irregular heartbeat; headache; increased thirst; muscle pain or cramps; nausea or vomiting; shortness of breath; swelling of face, ankles, or hands; unusual tiredness or weakness); *hypophosphatemia* (bone pain; convulsions; loss of appetite;

trouble breathing; unusual tiredness or weakness); *hypothyroidism* (constipation; depressed mood; dry skin and hair; feeling cold; hair loss; hoarseness or husky voice; muscle cramps and stiffness; slowed heartbeat; weight gain; unusual tiredness or weakness); *infarction, myocardial* (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); *infection* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *influenza-like illness* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *lymphopenia* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *mucositis* (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *neutropenia* (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *pain, bone or muscle*; *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); healing, wound, impaired.

DIAGNOSTIC TESTS: *anemia; bilirubin, increased; hyponatremia; hypophosphatemia; leukopenia; lymphopenia; thrombocytopenia; skin tests, suppressed reaction to.*

Sparfloxacin (Systemic)

Commercial name(s): *Zagam.*

Category: Antibacterial (systemic).

Conventional indications: Bronchitis, bacterial exacerbations (treatment); Pneumonia, community-acquired (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness; agitation; confusion; hallucinations; psychosis, acute; stimulation, CNS* (acute psychosis; agitation; confusion; hallucinations; tremors).

VERTIGO: *dizziness; lightheadedness.*

HEAD: *headache.*

MOUTH: *taste perversion* (changes in sense of taste); salivation in dogs.

STOMACH: *discomfort; nausea; pain; vomiting.*

ABDOMEN: *discomfort, abdominal; pain, abdominal; colitis, pseudomembranous* (abdominal or stomach cramps and pain, severe; abdominal tenderness; diarrhea, watery and severe, which may also be bloody; fever).

RECTUM: *diarrhea.*

GENTALIA FEMALE: *candidiasis, vaginal* (vaginal itching and discharge).

EXTREMITIES: *inflammation of tendons; pain in tendons; rupture, tendon* (pain, inflammation, or swelling in calves, shoulders, or hands); *tendinitis* (pain, inflammation, or swelling in calves, shoulders, or hands).

SLEEP: *drowsiness; trouble in sleeping.*

SKIN: **phototoxicity** (blisters; itching; rash; redness; sensation of skin burning; swelling); *hypersensitivity reactions* (skin rash, itching, or redness).

GENERALITIES: *inflammation of tendons; pain in tendons; rupture, tendon* (pain, inflammation, or swelling in calves, shoulders, or hands); *stimulation, CNS* (acute psychosis; agitation; confusion; hallucinations; tremors); *tendinitis* (pain, inflammation, or swelling in calves, shoulders, or hands); *tremors*; inactivity in mice and dogs.

DIAGNOSTIC TESTS: *QTc prolongation.*

Spectinomycin (Systemic)

Commercial name(s): *Trobicin.*

Category: Antibacterial (systemic).

Conventional indications: Gonorrhea, endocervical (treatment); Gonorrhea, rectal (treatment); Gonorrhea, urethral (treatment); Gonorrhea, disseminated (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

STOMACH: *disturbance, gastrointestinal* (abdominal cramps; nausea and vomiting).

ABDOMEN: *disturbance, gastrointestinal* (abdominal cramps; nausea and vomiting).

GENERALITIES: *hypersensitivity* (chills or fever; itching or redness of the skin); *pain at site of injection.*

Spermicides (Vaginal)

Commercial name(s): *Advantage 24; Because; Conceptrol Contraceptive Inserts; Conceptrol Gel; Delfen; Emko; Emko Pre-Fil; Encare; Gynol II Extra Strength Contraceptive Jelly; Gynol II Original Formula Contraceptive Jelly; K-Y Plus; Koromex Cream; Koromex Crystal Clear Gel; Koromex Foam; Koromex Jelly; Ortho-Creme; Ortho-Gynol; Pharmatex; Ramses Contraceptive Foam; Ramses Crystal Clear Gel; Semicid; Shur-Seal; VCF.*

Category: Contraceptive, vaginal.

Conventional indications: Pregnancy (prophylaxis); Sexually transmitted diseases (prophylaxis); Pelvic inflammatory disease (prophylaxis).

Primary Actions or Pathogenetic Symptoms

ABDOMEN: *hepatotoxicity in rats and rabbits* [peritoneal or vaginal doses].

RECTUM: *burning of rectum; irritation of rectum; itching of rectum; stinging of rectum; warmth of rectum.*

BLADDER: *infection, urinary tract* (increased frequency of urination; pain on urination; bladder pain; cloudy or bloody urine) (in females).

KIDNEYS: *infection, urinary tract* (increased frequency of urination; pain on urination; bladder pain; cloudy or bloody urine) (in females); *nephrotoxicity in rats and rabbits* [peritoneal or vaginal doses].

GENITALIA MALE: *spermicide* (inactivate or kill sperm); *burning of the penis*; *irritation of the penis*; *itching of the penis*; *stinging of the penis*; *warmth of the penis*.

GENITALIA FEMALE: *burning of the vagina*; *discharge, vaginal, transient* [Suppositories, creams, or foams]; *dryness, vaginal*; *irritation of the vagina*; *itching of the vagina*; *odor, vaginal*; *stinging of the vagina*; *warmth of the vagina*; *candidiasis, vulvovaginal* (thick, white, or curd-like vaginal discharge) [Cervical cap or diaphragm]; *vaginitis, allergic* (persistent vaginal redness, irritation, rash, dryness, or whitish discharge).

SKIN: *burning*; *irritation*; *itching*; *stinging*; *warmth*; *dermatitis, contact* (persistent skin rash, redness, irritation, or itching) (in males or females).

GENERALITIES: *toxic shock syndrome* (dizziness; fever; lightheadedness; chills; sunburn-like rash that is followed by peeling of the skin; muscle aches; hypotension; unusual redness of the mucous membranes inside of the mouth, nose, throat, vagina, or conjunctivae; confusion) [Cervical cap or diaphragm].

Spiramycin (Systemic)

Commercial name(s): *Provamicina; Rovamicina; Rovamycine; Rovamycine 250; Rovamycine 500; Rovamycine-250; Rovamycine-500; Spiramycine Coquelusédal*.

Category: Antibacterial (systemic); Antiprotozoal.

Conventional indications: Toxoplasmosis (treatment).

Primary Actions or Pathogenetic Symptoms

THROAT: *esophagitis, ulcerated* (chest pain; heartburn).

STOMACH: *disturbances, gastrointestinal* (diarrhea; nausea; stomach pain; vomiting).

ABDOMEN: *disturbances, gastrointestinal* (diarrhea; nausea; stomach pain; vomiting); *colitis, acute* (abdominal pain and tenderness; bloody stools; fever); *injury, intestinal* (abdominal pain and tenderness).

SKIN: *hypersensitivity reactions* (skin rash and itching).

GENERALITIES: *thrombocytopenia* (unusual bleeding or bruising); *hepatitis, cholestatic* (abdominal pain; nausea; vomiting; yellow eyes or skin); *pain at site of injection*.

DIAGNOSTIC TESTS: *thrombocytopenia*; *QT prolongation in infants* (irregular heartbeat; recurrent fainting).

Stavudine (Systemic)

Commercial name(s): *Zerit; Zerit XR*.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus (HIV) infection (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache*.

STOMACH: *anorexia* (loss of appetite; weight loss); *disturbances, gastrointestinal* (abdominal pain; diarrhea; loss of appetite; nausea or vomiting).

ABDOMEN: *disturbances, gastrointestinal* (abdominal pain; diarrhea; loss of appetite; nausea or vomiting); *failure, liver* (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin); *hepatomegaly, severe, with steatosis, possibly fatal* (generalized fatigue, nausea, vomiting, abdominal pain, and sudden unexplained weight loss, tachypnea, dyspnea, or motor weakness); *pancreatitis, fatal or nonfatal* (nausea, vomiting, severe abdominal pain); *steatosis, hepatic* (dark urine; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); hepatotoxicity (dark or amber urine; loss of appetite; pale stools; stomach pain; unusual tiredness or weakness; yellow eyes or skin).

EXTREMITIES: *neuropathy, peripheral* (tingling, burning, numbness, or pain in the hands or feet); *arthralgia* (joint pain); *myalgia* (muscle pain); *neuropathy, peripheral, worsened* (tingling, burning, numbness, or pain in the hands or feet); *weakness, motor, severe* (shakiness and unsteady walk; unsteadiness, trembling, or other problems with muscle control or coordination; respiratory failure).

SLEEP: *insomnia* (difficulty in sleeping).

CHILL: *chills and fever*.

FEVER: *fever and chills*.

SKIN: *rash*.

GENERALITIES: *asthenia* (lack of strength or energy; weakness); *allergic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *arthralgia* (joint pain); *hypersensitivity reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *myalgia* (muscle pain); *acidosis, lactic* (abdominal pain; dyspnea; generalized fatigue; motor weakness; nausea; sudden unexplained weight loss; tachypnea; vomiting); *anemia* (unusual tiredness or weakness); *hepatitis* (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); *fat redistribution* (breast enlargement; buffalo hump; central obesity; facial wasting; peripheral wasting); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *neuropathy, peripheral, worsened* (tingling, burning, numbness, or pain in the hands or feet); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *weakness, motor, severe* (shakiness and unsteady walk; unsteadiness, trembling, or other problems with muscle control or coordination; respiratory failure).

DIAGNOSTIC TESTS: *anemia; leukopenia; steatosis, hepatic; thrombocytopenia*.

Streptozocin (Systemic)

Commercial name(s): Zanosar.

Category: Antineoplastic.

Conventional indications: Carcinoma, islet cell (treatment); Carcinoma, pancreatic (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: nausea; vomiting.

ABDOMEN: hepatotoxicity.

RECTUM: *diarrhea*.

KIDNEYS: toxicity and failure, renal, possibly fatal (swelling of feet or lower legs; unusual decrease in urination; proteinuria, glycosuria, hypophosphatemia, azotemia, renal tubular acidosis).

GENERALITIES: *hypoglycemia* (anxiety, nervousness, or shakiness; chills, cold sweats, or cool, pale skin; drowsiness or unusual tiredness or weakness; fast pulse; headache; unusual hunger) (occurring shortly after injection); *pain at site of injection* (caused by rapid intravenous injection or extravasation); *redness at site of injection* (caused by rapid intravenous injection or extravasation); *glucose tolerance abnormalities, mild to moderate*; *infection* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *insulin, release of, sudden initial*; *insulin shock with hypoglycemia*; *leukopenia* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *toxicity, hematological*.

DIAGNOSTIC TESTS: *hypoglycemia*; *glucose tolerance abnormalities, mild to moderate*; *insulin, release of, sudden initial*; *leukopenia*; *thrombocytopenia*.

Strontium Chloride SR 89 (Systemic)

Commercial name(s): Metastron.

Category: Antineoplastic.

Conventional indications: Bone lesions, metastatic (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: flushing [rapid administration].

GENERALITIES: **flare reaction** (increase in bone pain, transient); *bone marrow depression leading to thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *leukopenia* (cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination); *septicemia, fatal* (following leukopenia).

DIAGNOSTIC TESTS: *leukopenia*; *bone marrow depression leading to thrombocytopenia*.

Succimer (Systemic)

Commercial name(s): *Chemet.*

Category: Chelating agent.

Conventional indications: Toxicity, lead (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: appetite, loss of; nausea; vomiting.

RECTUM: diarrhea.

STOOL: loose stools; odor to feces, unpleasant.

URINE: odor to urine, unpleasant.

PERSPIRATION: odor to sweat, unpleasant.

SKIN: *rash.*

GENERALITIES: *neutropenia, mild to moderate* (chills; fever).

Sucralfate (Oral-Local)

Commercial name(s): *Apo-sucralfate; Carafate; Sulcrate; Sulcrate Suspension Plus.*

Category: Antiulcer agent; Gastric mucosa protectant.

Conventional indications: Ulcer, duodenal (treatment); Ulcer, duodenal (prophylaxis); Ulcer, gastric (treatment); Arthritis, rheumatoid (treatment adjunct); Stress-related mucosal damage (prophylaxis and treatment); Reflux, gastroesophageal (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness; lightheadedness.*

MOUTH: *dryness.*

STOMACH: *cramps; indigestion; nausea; pain.*

RECTUM: constipation; *diarrhea.*

BACK: *backache.*

SLEEP: *drowsiness.*

SKIN: *hives; itching; rash.*

Sulconazole (Topical)

Commercial name(s): *Exelderm.*

Category: Antifungal (topical).

Conventional indications: Tinea corporis (treatment); Tinea cruris (treatment); Tinea pedis (treatment); Tinea versicolor (treatment); Candidiasis, cutaneous (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *burning not present before therapy; itching not present before therapy; redness not present before therapy; stinging not present before therapy.*

Sulfadoxine and Pyrimethamine (Systemic)

Commercial name(s): *Fansidar*.

Category: Antiprotozoal.

Conventional indications: Malaria (prophylaxis); Malaria (treatment); Isosporiasis (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: anxiety; nervousness.

HEAD: headache.

MOUTH: glossitis (irritation or soreness of tongue); *stomatitis* (sores in mouth and on lips).

EXTERNAL THROAT: *goiter* (swelling of front part of neck); *thyroid function disturbance* (swelling of front part of neck).

STOMACH: disturbances, gastrointestinal (abdominal pain; diarrhea; nausea or vomiting); toxicity, gastrointestinal (anorexia [loss of appetite]; severe vomiting).

ABDOMEN: disturbances, gastrointestinal (abdominal pain; diarrhea; nausea or vomiting); *necrosis, fulminant hepatic; pancreatitis* (abdominal or stomach pain; constipation; nausea; vomiting); toxicity, gastrointestinal (anorexia [loss of appetite]; severe vomiting).

URINE: *crystalluria* (blood in urine; lower back pain; pain or burning while urinating); *hematuria* (blood in urine; lower back pain; pain or burning while urinating).

EXTREMITIES: *arthralgia* (pain in joints); ataxia (clumsiness or unsteadiness).

SLEEP: drowsiness.

SKIN: photosensitivity (increased sensitivity of skin to sunlight); *erythema multiforme* (bleeding or crusting sores on lips; chest pain; fever with or without chills; muscle cramps or pain; redness, blistering, peeling, or loosening of skin; sores, ulcers, and/or white spots in mouth; sore throat; unusual tiredness or weakness); *necrolysis, toxic epidermal [Lyell's syndrome]* (redness, tenderness, itching, burning, or peeling of skin; sore throat; fever with or without chills).

GENERALITIES: fatigue; hypersensitivity (fever; skin rash); *agranulocytosis* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); *anemia* (unusual tiredness or weakness); *arthralgia* (pain in joints); *erythema multiforme* (bleeding or crusting sores on lips; chest pain; fever with or without chills; muscle cramps or pain; redness, blistering, peeling, or loosening of skin; sores, ulcers, and/or white spots in mouth; sore throat; unusual tiredness or weakness); *hepatitis* (loss of appetite; nausea; swelling in upper abdominal area; vomiting; yellow eyes and/or skin); *leukopenia* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); *Stevens-Johnson syndrome* (bleeding or crusting sores on lips; chest pain; fever with or without chills; muscle cramps or pain; redness, blistering, peeling, or loosening of skin; sores, ulcers, and/or white spots in mouth; sore throat; unusual tiredness or weakness); *thrombocytopenia* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult

urination; pinpoint red spots on skin; unusual bleeding or bruising); *anaphylaxis or anaphylactoid reaction* (changes in facial skin color; fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; skin rash and/or itching); *death* (due to severe reactions such as Stevens-Johnson syndrome, toxic epidermal necrolysis, fulminant hepatic necrosis, agranulocytosis, aplastic anemia, and other blood dyscrasias); *Lyell's syndrome* (redness, tenderness, itching, burning, or peeling of skin; sore throat; fever with or without chills); anemia, megaloblastic (unusual tiredness or weakness); ataxia (clumsiness or unsteadiness); seizures; toxicity, CNS (ataxia [clumsiness or unsteadiness]; trembling; seizures); trembling.

DIAGNOSTIC TESTS: *agranulocytosis*; *anemia*; *leukopenia*; *thrombocytopenia*; *crystalluria*; *hematuria*; anemia, megaloblastic.

Sulfapyridine (Systemic)

Commercial name(s): *Dagenan*.

Category: Dermatitis herpetiformis suppressant.

Conventional indications: Dermatitis herpetiformis (treatment); Dermatitis, subcorneal pustular (treatment); Pemphigoid (treatment); Pyoderma gangrenosum (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache, continuing.

EXTERNAL THROAT: *goiter* (swelling of front part of neck); *thyroid function disturbance* (swelling of front part of neck).

STOMACH: disturbances, gastrointestinal (diarrhea; anorexia; nausea or vomiting).

ABDOMEN: disturbances, gastrointestinal (diarrhea; anorexia; nausea or vomiting); *necrosis, fulminant hepatic*.

URINE: *crystalluria* (blood in urine; lower back pain; pain or burning while urinating); *hematuria* (blood in urine; lower back pain; pain or burning while urinating).

GENITALIA MALE: *infertility in men*; *oligospermia*.

SKIN: photosensitivity (increased sensitivity of skin to sunlight); *necrolysis, toxic epidermal*.

GENERALITIES: hypersensitivity (itching; skin rash; fever); *blood dyscrasias* (pale skin; sore throat; unusual bleeding or bruising; unusual tiredness or weakness); *hepatitis* (yellow eyes or skin); *Lyell's syndrome* (aching of joints and muscles; difficulty in swallowing; redness, blistering, peeling, or loosening of skin; unusual tiredness or weakness); *Stevens-Johnson syndrome* (aching of joints and muscles; difficulty in swallowing; redness, blistering, peeling, or loosening of skin; unusual tiredness or weakness); *death* (due to severe reactions such as Stevens-Johnson syndrome, toxic epidermal necrolysis, fulminant hepatic necrosis, agranulocytosis, aplastic anemia, other blood dyscrasias, and hypersensitivity reactions); *goiter* (swelling of front part of neck); *thyroid function disturbance* (swelling of front part of neck).

DIAGNOSTIC TESTS: *crystalluria*; *hematuria*; *oligospermia*; *thyroid function disturbance*.

Sulfasalazine (Systemic)

Commercial name(s): *Alti-Sulfasalazine; Alti-Sulfasalazine (Enteric-Coated); Azulfidine; Azulfidine EN-Tabs; PMS-Sulfasalazine; PMS-Sulfasalazine E.C.; S.A.S. Enteric-500; S.A.S.-500; Salazopyrin; Salazopyrin EN-Tabs.*

Category: Bowel disease (inflammatory) suppressant; Antirheumatic (disease-modifying).

Conventional indications: Bowel disease, inflammatory (prophylaxis and treatment); Arthritis, rheumatoid (treatment); Arthritis, juvenile rheumatoid; poly-articular course (treatment); Ankylosing spondylitis (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: headache, continuing.

STOMACH: disturbances, **gastrointestinal** (abdominal or stomach pain or upset; diarrhea; loss of appetite; nausea or vomiting).

ABDOMEN: disturbances, **gastrointestinal** (abdominal or stomach pain or upset; diarrhea; loss of appetite; nausea or vomiting); *damage, hepatic.*

BLADDER: anuria (lack of urination).

KIDNEYS: *damage, renal.*

URINE: discoloration of urine, **orange-yellow**; crystalluria (blood in urine; lower back pain; pain or burning while urinating); hematuria (blood in urine; lower back pain; pain or burning while urinating).

GENITALIA MALE: *infertility in males; oligospermia.*

RESPIRATION: *cyanosis* (bluish fingernails, lips, or skin).

CHEST: *pneumonitis, interstitial* (cough; difficult breathing; fever); *alveolitis, fibrosing.*

EXTREMITIES: *cyanosis* (bluish fingernails, lips, or skin).

SLEEP: drowsiness.

SKIN: discoloration of skin, **orange-yellow**; **photosensitivity** (increased sensitivity of skin to sunlight); *necrolysis, toxic epidermal* (difficulty in swallowing; redness, blistering, peeling, or loosening of skin).

GENERALITIES: **hypersensitivity reaction** (aching of joints; fever; itching; skin rash); **serum sickness-like syndrome** (fever; headache; nausea; rash; vomiting) (in pediatric patients being treated for juvenile rheumatoid arthritis); *agranulocytosis* (fever and sore throat); *anemia, aplastic* (fever, chills, or sore throat; unusual bleeding or bruising; unusual tiredness or weakness); *anemia, hemolytic* (back, leg, or stomach pains; loss of appetite; pale skin; unusual tiredness or weakness; fever); *cyanosis* (bluish fingernails, lips, or skin); *Heinz body* (back, leg, or stomach pains; loss of appetite; pale skin; unusual tiredness or weakness; fever); *hepatitis* (yellow eyes or skin); *lupus erythematosus-like syndrome, systemic (SLE)* (blisters on skin; chest pain; general feeling of discomfort or illness; skin rash, hives, and/or itching); *neutropenia* (fever and sore throat); *Stevens-Johnson syndrome* (aching of joints and muscles; redness, blistering, peeling, or loosening of skin; unusual tiredness or weakness); *thrombocytopenia* (unusual bleeding or bruising); *death* (from hypersensitivity reactions, agranulocytosis, aplastic anemia, other blood dyscrasias, renal and hepatic damage, irreversible neuromuscular and central nervous system (CNS)

changes, and fibrosing alveolitis); *neuromuscular and central nervous system (CNS) changes, irreversible*; seizures.

DIAGNOSTIC TESTS: **discoloration of urine, orange-yellow**; *agranulocytosis*; *anemia, aplastic*; *anemia, hemolytic*; *neutropenia*; *thrombocytopenia*; *oligospermia*; crystalluria; hematuria.

Secondary Actions or Rebound Effects: *colitis, ulcerative, exacerbation of* (bloody diarrhea; fever; rash).

Sulfinpyrazone (Systemic)

Commercial name(s): *Anturan; Anturane; Apo-Sulfinpyrazone; Novopyrazone.*

Category: Antigout agent; Antihyperuricemic.

Conventional indications: Gouty arthritis, chronic (treatment); Hyperuricemia (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: clumsiness.

STOMACH: **nausea; pain; vomiting**; *bleeding, gastrointestinal* (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds).

ABDOMEN: *bleeding, gastrointestinal* (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds).

RECTUM: *bleeding, gastrointestinal* (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds); diarrhea.

KIDNEYS: **calculi, renal, urate** (lower back and/or side pain, painful urination, with or without blood in urine); *failure, renal, possibly associated with urate nephropathy* (increased blood pressure; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sudden decrease in amount of urine; swelling of face, fingers, feet, and/or lower legs; unusual tiredness or weakness; weight gain); *impairment, renal function, transient; ischemia, renal, transient; nephritis, interstitial, acute.*

RESPIRATION: difficulty in breathing.

EXTREMITIES: clumsiness; unsteadiness.

FEVER: *fever, allergic.*

SKIN: *dermatitis, allergic* (skin rash).

GENERALITIES: *agranulocytosis* (fever with or without chills; sores, ulcers, or white spots on lips or in mouth; sore throat); *anemia* (unusual tiredness or weakness); *anemia, aplastic* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sores, ulcers, or white spots on lips or in mouth; swollen and/or painful glands; unusual bleeding or bruising; unusual tiredness or weakness); *leukopenia* (fever with or without chills; sore throat; unusual tiredness or weakness); *pancytopenia* (shortness of breath, troubled breathing, tightness in chest, and/or wheezing; sores, ulcers, or white spots on lips or in mouth; swollen and/or painful glands; unusual bleeding or bruising; unusual tiredness or weakness); *thrombocytopenia* (rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); convulsions

DIAGNOSTIC TESTS: *hypouricemia; calculi, renal, urate; agranulocytosis; anemia; anemia, aplastic; leukopenia; pancytopenia; synthesis of renal vasodilator prostaglandins and/or kinins, inhibited; thrombocytopenia.*

Secondary Actions or Rebound Effects: *arthritis, gouty, acute attack* (joint pain; redness; swelling).

Sulfonamides (Ophthalmic)

Commercial name(s): *Ak-Sulf; Bleph-10; Cetamide; Gantrisin; I-Sulfacet; Isopto-Cetamide; Ocu-Sul-10; Ocu-Sul-15; Ocu-Sul-30; Ocusulf-10; Ophthacet; Sodium Sulamyd; Steri-Units Sulfacetamide; Sulf-10; Sulfair; Sulfair 10; Sulfair 15; Sulfair Forte; Sulfamide; Sulfex; Sulten-10.*

Category: Antibacterial (ophthalmic).

Conventional indications: Conjunctivitis, bacterial (treatment); Ocular infections, other (treatment); Trachoma (treatment); Chlamydial infections, other (treatment); Blepharitis, bacterial (treatment); Blepharoconjunctivitis (treatment); Keratitis, bacterial (treatment); Keratoconjunctivitis, bacterial (treatment).

Primary Actions or Pathogenetic Symptoms

GENERALITIES: *hypersensitivity* (itching, redness, swelling, or other sign of irritation not present before therapy).

Sulfonamides (Systemic)

Commercial name(s): *Apo-Sulfamethoxazole; Apo-Sulfisoxazole; Gantanol; Gantrisin; Novo-Soxazole; Sulfizole; Thiosulfil Forte; Urobak.*

Category: Antibacterial (urinary) [Sulfamethizole]; Antibacterial (systemic) [Sulfadiazine; Sulfamethoxazole; Sulfisoxazole]; Antiprotozoal [Sulfadiazine; Sulfamethoxazole; Sulfisoxazole].

Conventional indications: Chancroid (treatment); Chlamydial infections, endocervical and urethral (treatment); Conjunctivitis, inclusion (treatment); Malaria (treatment); Meningitis (prophylaxis); Nocardiosis (treatment); Otitis media (treatment); Rheumatic fever (prophylaxis) [Sulfadiazine, sulfamethoxazole, and sulfisoxazole]; Toxoplasmosis (treatment); Trachoma (treatment); Urinary tract infections, bacterial (treatment); Lymphogranuloma venereum (treatment); Paracoccidioidomycosis (treatment) [Sulfadiazine].

Primary Actions or Pathogenetic Symptoms

MIND: *lethargy; confusion; depression, mental; disorientation; euphoria; hallucination.*

VERTIGO: *dizziness.*

HEAD: *headache.*

EXTERNAL THROAT: *goiter* (swelling of front part of neck); *thyroid function disturbance* (swelling of front part of neck).

STOMACH: disturbances, gastrointestinal (diarrhea; loss of appetite; nausea or vomiting).

ABDOMEN: disturbances, gastrointestinal (diarrhea; loss of appetite; nausea or vomiting); *colitis*, *Clostridium difficile* (severe abdominal or stomach cramps and pain; abdominal tenderness; watery and severe diarrhea, which may also be bloody; fever); *necrosis*, *fulminant hepatic*.

KIDNEYS: *necrosis*, *tubular* (greatly increased or decreased frequency of urination or amount of urine; increased thirst; loss of appetite; nausea; vomiting); *nephritis*, *interstitial* (greatly increased or decreased frequency of urination or amount of urine; increased thirst; loss of appetite; nausea; vomiting).

URINE: *crystalluria* (blood in urine; lower back pain; pain or burning while urinating); *hematuria* (blood in urine; lower back pain; pain or burning while urinating).

FEVER: *fever*.

SKIN: photosensitivity (increased sensitivity of skin to sunlight); *necrolysis*, *toxic epidermal*; *rash*.

GENERALITIES: hypersensitivity (fever; itching; skin rash); *blood dyscrasias* (fever and sore throat; pale skin; unusual bleeding or bruising; unusual tiredness or weakness); *hepatitis* (yellow eyes or skin); *Lyell's syndrome* (difficulty in swallowing; redness, blistering, peeling, or loosening of skin); *Stevens-Johnson syndrome* (aching joints and muscles; redness, blistering, peeling, or loosening of skin; unusual tiredness or weakness); *death* (due to severe reactions such as Stevens-Johnson syndrome, toxic epidermal necrolysis, fulminant hepatic necrosis, agranulocytosis, aplastic anemia, and other blood dyscrasias); *goiter* (swelling of front part of neck); *thyroid function disturbance* (swelling of front part of neck); *leukopenia*; *toxicity*, *central nervous system* (confusion; disorientation; euphoria; hallucination; mental depression); *toxicity*, *multiorgan*.

DIAGNOSTIC TESTS: *crystalluria*; *hematuria*; *leukopenia*; *thyroid function disturbance*.

Sulfonamides (Vaginal)

Commercial name(s): *AVC*; *Sultrin*; *Trysul*.

Category: Anti-infective (vaginal).

Conventional indications: Bacterial infections (treatment).

Primary Actions or Pathogenetic Symptoms

GENITALIA MALE: *irritation of penis of sexual partner*; *rash of penis of sexual partner*.

SKIN: *skin reaction*, *local* (burning at site of application).

GENERALITIES: *hypersensitivity* (itching, burning, skin rash, redness, swelling, or other sign of irritation not present before therapy); *agranulocytosis* [vaginal triple sulfa cream]; *Stevens-Johnson syndrome*, possibly fatal; *toxicity*, *local or systemic*.

Sulfonamides and Phenazopyridine (Systemic)

Commercial name(s): *Azo Ganantol*; *Azo Gantrisin*; *Azo-Sulfamethoxazole*; *Azo-Sulfisoxazole*; *Azo-Truxazole*; *Sul-Azo*.

Category: Antibacterial-analgesic (urinary tract).

Conventional indications: Urinary tract infections, bacterial (treatment).

Primary Actions or Pathogenetic Symptoms

Sulfonamides - See Sulfonamides (Systemic).

Phenazopyridine - See Phenazopyridine (Systemic).

Sulfonamides and Trimethoprim (Systemic)

Commercial name(s): *Apo-Sulfatrim; Apo-Sulfatrim DS; Bactrim; Bactrim DS; Bactrim I.V.; Bactrim Pediatric; Cofatrim Forte; Coptin; Coptin 1; Cotrim; Cotrim DS; Cotrim Pediatric; Novo-Trimel; Novo-Trimel D.S.; Nu-Cotrimox; Nu-Cotrimox DS; Roubac; Septra; Septra DS; Septra Grape Suspension; Septra I.V.; Septra Suspension; Sulfatrim; Sulfatrim Pediatric; Sulfatrim S/S; Sulfatrim Suspension; Sulfatrim-DS.*

Category: Antibacterial (systemic) [Sulfadiazine and Trimethoprim; Sulfamethoxazole and Trimethoprim]; Antiprotozoal [Sulfamethoxazole and Trimethoprim].

Conventional indications: Bronchitis (treatment) [Oral sulfamethoxazole and trimethoprim combination]; Enterocolitis, *Shigella* species (treatment) [Oral and parenteral sulfamethoxazole and trimethoprim combinations]; Otitis media, acute (treatment) [Oral sulfamethoxazole and trimethoprim combination]; Pneumonia, *Pneumocystis carinii* (prophylaxis) [Oral sulfamethoxazole and trimethoprim combination]; Pneumonia, *Pneumocystis carinii* (treatment) [Oral and parenteral sulfamethoxazole and trimethoprim combinations]; Traveler's diarrhea (treatment) [Oral sulfamethoxazole and trimethoprim combination]; Urinary tract infections, bacterial (treatment) [Sulfadiazine and trimethoprim combination and oral and parenteral sulfamethoxazole and trimethoprim combinations]; Biliary tract infections (treatment) [Sulfamethoxazole and trimethoprim combination]; Bone and joint infections (treatment) [Sulfamethoxazole and trimethoprim combination]; Chancroid (treatment) [Sulfamethoxazole and trimethoprim combination]; Chlamydial infections (treatment) [Sulfamethoxazole and trimethoprim combination]; Cyclospora infections (treatment) [Sulfamethoxazole and trimethoprim combination]; Endocarditis, bacterial (treatment) [Sulfamethoxazole and trimethoprim combination]; Gonorrhea, endocervical and urethral, uncomplicated (treatment) [Sulfamethoxazole and trimethoprim combination]; Granuloma inguinale (treatment) [Sulfamethoxazole and trimethoprim combination]; HIV-related infections in Africa (prophylaxis) [Sulfamethoxazole and trimethoprim combination]; Isosporiasis (prophylaxis and treatment) [Sulfamethoxazole and trimethoprim combination]; Lymphogranuloma venereum (treatment) [Sulfamethoxazole and trimethoprim combination]; Meningitis (treatment) [Sulfamethoxazole and trimethoprim combination]; Nocardiosis (treatment) [Sulfamethoxazole and trimethoprim combination]; Paracoccidioidomycosis (treatment) [Sulfamethoxazole and trimethoprim combination]; Paratyphoid fever (treatment) or Typhoid fever (treatment) [Sulfamethoxazole and trimethoprim combination]; Septicemia, bacterial (treatment) [Sulfamethoxazole and trimethoprim combination]; Sinusitis (treatment) [Sulfamethoxazole and trimethoprim combination]; Skin and soft tissue infections (treatment) [Sulfamethoxazole and trimethoprim combination]; Toxoplasmosis

(prophylaxis) [Sulfamethoxazole and trimethoprim combination]; Urinary tract infections, bacterial (prophylaxis) [Sulfamethoxazole and trimethoprim combination]; Whipple's disease (treatment) [Sulfamethoxazole and trimethoprim combination].

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; depression, mental; hallucinations; nervousness.*

VERTIGO: *dizziness.*

HEAD: *headache; meningitis, aseptic* (confusion; drowsiness; general feeling of illness; severe headache; nausea; stiff neck and/or back).

HEARING: *ringing in the ears.*

MOUTH: *glossitis* (swelling of the tongue); *stomatitis* (mouth sores).

EXTERNAL THROAT: *goiter* (swelling of front part of neck); *thyroid function disturbance* (swelling of front part of neck).

STOMACH: *disturbances, gastrointestinal* (abdominal pain; diarrhea; loss of appetite; nausea or vomiting).

ABDOMEN: *disturbances, gastrointestinal* (abdominal pain; diarrhea; loss of appetite; nausea or vomiting); *pancreatitis* (back or stomach pain, severe; fast heart beat; fever; nausea or vomiting; swelling of the stomach); *colitis, Clostridium difficile* (severe abdominal or stomach cramps and pain; abdominal tenderness; watery and severe diarrhea, which may also be bloody; fever).

KIDNEYS: *necrosis, tubular* (greatly increased or decreased frequency of urination or amount of urine; increased thirst; loss of appetite; nausea; vomiting); *nephritis, interstitial* (greatly increased or decreased frequency of urination or amount of urine; increased thirst; loss of appetite; nausea; vomiting).

URINE: *crystalluria* (blood in urine; lower back pain; pain or burning while urinating); *hematuria* (blood in urine; lower back pain; pain or burning while urinating).

EXTREMITIES: *rhabdomyolysis* (fatigue; muscle pain; muscle weakness).

FEVER: *fever.*

SKIN: *photosensitivity* (increased sensitivity of skin to sunlight); *necrolysis, toxic epidermal* (difficulty in swallowing; redness, blistering, peeling, or loosening of skin); *rash.*

GENERALITIES: *hypersensitivity* (fever; itching; skin rash); *tiredness; dyscrasias, blood* (fever and sore throat; pale skin; unusual bleeding or bruising; unusual tiredness or weakness); *hepatitis, cholestatic* (yellow eyes or skin); *Stevens-Johnson syndrome* (aching joints and muscles; redness, blistering, peeling, or loosening of skin; unusual tiredness or weakness); *death* (due to severe reactions such as Stevens-Johnson syndrome, toxic epidermal necrolysis, fulminant hepatic necrosis, agranulocytosis, aplastic anemia, and other blood dyscrasias); *goiter* (swelling of front part of neck); *thyroid function disturbance* (swelling of front part of neck); *leukopenia; meningitis, aseptic* (confusion; drowsiness; general feeling of illness; severe headache; nausea; stiff neck and/or back); *methemoglobinemia* (bluish fingernails, lips, or skin; difficult breathing; pale skin; sore throat and fever; unusual bleeding or bruising; unusual tiredness or weakness); *rhabdomyolysis* (fatigue; muscle pain; muscle weakness); *seizures* (convulsions); *thrombophlebitis* (pain at site of injection); *toxicity, central nervous system (CNS)* (anxiety;

hallucinations; mental depression; nervousness; seizures (convulsions)); *toxicity, multiorgan.*

DIAGNOSTIC TESTS: *crystalluria; hematuria; methemoglobinemia; leukopenia; thyroid function disturbance.*

Sulfur (Topical)

Commercial name(s): *Cuticura Ointment; Finac; Fostex CM; Fostex Regular Strength Medicated Cover-Up; Fostril Cream; Fostril Lotion; Lotio Alsulfa; Sulpho-Lac.*

Category: Keratolytic (topical) [Sulfur Cream; Sulfur Lotion; Sulfur Ointment USP; Sulfur Bar Soap]; Antiacne agent (topical) [Sulfur Cream; Sulfur Lotion; Sulfur Ointment USP; Sulfur Bar Soap]; Antiseborrheic [Sulfur Ointment USP]; Scabicide [Sulfur Ointment USP]; Antirosacea agent (topical) [Sulfur Cream; Sulfur Lotion; Sulfur Ointment USP; Sulfur Bar Soap].

Conventional indications: Acne vulgaris (treatment) [Sulfur (cream, lotion, ointment, and bar soap)]; Dermatitis, seborrheic (treatment) [Sulfur ointment]; Scabies (treatment) [Sulfur ointment]; Rosacea (treatment) [Sulfur (cream, lotion, ointment, and bar soap)].

Primary Actions or Pathogenetic Symptoms

SKIN: *peeling* [Sulfur Cream; Sulfur Lotion; Sulfur Ointment USP; Sulfur Bar Soap]; *irritation not present before therapy; redness.*

Sumatriptan (Systemic)

Commercial name(s): *Imitrex.*

Category: Antimigraine agent.

Conventional indications: Headache, migraine (treatment); Headache, cluster (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; depression, mental; hysteria; sedation; inactivity* (animal studies).

VERTIGO: *dizziness; lightheadedness; syncope; vertigo.*

HEAD: *cerebrovascular accident; hemorrhage, subarachnoid.*

EYE: *defects in the corneal epithelium* (in dogs); *opacities, corneal* (in dogs); mydriasis (animal studies).

VISION: *vision changes.*

NOSE: **irritation in the nose** (burning; discharge; pain; or soreness) [nasal spray]; *discomfort in nasal cavity or sinuses.*

FACE: *discomfort in jaw.*

MOUTH: **taste perversion** (change in sense of taste) [nasal spray]; *discomfort in mouth or tongue.*

THROAT: *difficulty in swallowing; discomfort in throat; dysphagia; globus hystericus.*

EXTERNAL THROAT: *heaviness in neck; pressure in neck; tightness in neck.*

STOMACH: *nausea; vomiting; polydipsia; reflux, gastrointestinal; ulceration, peptic.*

ABDOMEN: *gallstones; reflux, gastrointestinal.*

BLADDER: *dysuria; frequency, urinary.*

KIDNEYS: *calculus, renal; failure, renal, acute.*

RESPIRATION: *dyspnea; cyanosis (animal studies); respiratory rate, reduced (animal studies).*

CHEST: *heaviness in chest; pain, chest, severe; pressure in chest; tightness in chest; angina, Prinzmetal's; arrhythmias, cardiac (atrial fibrillation, sinus arrhythmia, ventricular fibrillation, ventricular tachycardia); bradycardia; vasospasm, coronary artery (resulting in symptomatic myocardial ischemia and myocardial infarction).*

EXTREMITIES: *aches, muscle; cramps, muscle; stiffness, muscle; dystonia; myoclonia; swelling of extremities; ataxia (animal studies); cyanosis (animal studies); erythema of extremities (animal studies); paralysis (animal studies).*

SLEEP: *drowsiness.*

SKIN: *flushing; dermatitis, allergic (skin rash, hives, and/or itching); erythema; photosensitivity; pruritus; rash; sunburn, exacerbation of; erythema of extremities (animal studies).*

GENERALITIES: **injection site reaction** (burning, pain, or redness); *aches, muscle; cramps, muscle; feeling of illness or tiredness, general; flushing; sensations, atypical* (sensation of burning, warmth, heat, numbness, tightness, or tingling; feeling cold; "strange" feeling); *stiffness, muscle; weakness; anaphylactic or anaphylactoid reaction* (changes in facial skin color; skin rash, hives, and/or itching; fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes, face, or lips; shortness of breath, troubled breathing, tightness in chest, and/or wheezing); *arrhythmias, cardiac* (atrial fibrillation, sinus arrhythmia, ventricular fibrillation, ventricular tachycardia); *bradycardia; death; dehydration; diplegia; dystonia; hemiplegia, transient; hypotension; intoxication; malaise; monoplegia; myoclonia; Raynaud's disease; seizures; sensations of burning, warmth, or heat; vasodilation; convulsions (animal studies); cyanosis (animal studies); injection site reactions (desquamation, hair loss, scab formation) (animal studies); paralysis (animal studies); tremor (animal studies).*

DIAGNOSTIC TESTS: *arrhythmias, cardiac* (atrial fibrillation, sinus arrhythmia, ventricular fibrillation, ventricular tachycardia); *calculus, renal; electrocardiogram, transient changes in* (ST segment elevations, other ST or T-wave changes, prolongation of PR or QTc intervals, nonsustained ventricular premature beats, isolated junctional ectopic beats, atrial ectopic beats, delayed activation of the right ventricle); *gallstones.*

Sunscreen Agents (Topical)

Commercial name(s): *A-Fil; Deeptan; Deeptan Suntan Oil Supreme; Hydroquinone Skin Bleaching with Sunscreens; Neutrogena Glow Sunless Tanning; Neutrogena Sensitive Skin Sunblock; Coppertone Waterproof Lotion Spf-15 Paba-Free; Coppertone Waterproof Lotion Spf-4 Paba-Free; Episun; Pabafilm 10; Pabafilm 15; Presun 15; Presun 15 Creamy Lotion; Presun 15 Facial; Presun 29; Presun 29 For Kids; Presun 30; Presun 30 Clear Gel.*

Category: Skin protectant (topical).

Conventional indications: Sunburn (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: *folliculitis* (burning, itching, and pain in hairy areas; pus in hair follicles).

SKIN: **drying, stinging; tightening;** *acne; dermatitis, allergic contact* (burning, itching, or stinging of skin); *dermatitis, photoallergic contact* (early appearance of redness or swelling of the skin; late appearance of rash with or without weeping blisters that become crusted, especially in sun-exposed areas of skin, and that may extend to unexposed areas); *irritation* (burning, itching, redness, or stinging of skin); *rash*.

Suramin (Systemic)

Commercial name(s): 309 F; Antrypol; Bayer 205; Belganyl; Fourneau 309; Germanin; Moranyl; Naganin; Naganol; Naphuride.

Category: Antiprotozoal (systemic); Anthelmintic (systemic).

Conventional indications: Trypanosomiasis, African, (treatment); Onchocerciasis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *prostration* (extreme tiredness or weakness).

HEAD: headache.

EYE: *atrophy, optic* (changes in or loss of vision); *edema, palpebral* (swelling around eyes); *lacrimation* (watery eyes); *photophobia* (increased sensitivity of eyes to light).

MOUTH: taste, metallic.

STOMACH: **anorexia** (loss of appetite); **disturbances, gastrointestinal** (abdominal pain; diarrhea; nausea; vomiting); *nausea; vomiting*.

ABDOMEN: **disturbances, gastrointestinal** (abdominal pain; diarrhea; nausea; vomiting).

KIDNEYS: **nephrotoxicity with albuminuria, transient** (cloudy urine).

URINE: **nephrotoxicity with albuminuria, transient** (cloudy urine).

EXTREMITIES: **arthritis** (joint pain); **hyperesthesias, palmar-plantar** (tenderness of the palms and soles); **neuropathy, peripheral** (numbness or weakness in arms, hands, legs, or feet).

FEVER: fever.

SKIN: **eruptions, erythematous maculopapular** (skin rash); **paresthesias** (crawling or tingling sensation of the skin); **pruritus** (itching); **urticaria** (stinging sensation on skin; swelling on skin); *dermatitis, exfoliative* (fever with or without chills; red, thickened, or scaly skin; swollen and/or painful glands; unusual bruising).

GENERALITIES: **arthritis** (joint pain); **fatigue** (weakness); **insufficiency, adrenal, relative** (diarrhea; easy fatigability; faintness, especially after missing meals; increased skin pigmentation; irritability; loss of appetite; nausea; vomiting); **malaise** (general feeling of discomfort); **paresthesias** (crawling or tingling sensation of the skin); *lymphadenopathy* (painful tender glands in the neck, armpits, or groin); *prostration* (extreme tiredness or weakness); *agranulocytosis* (fever and sore throat); *anemia* (unusual tiredness or weakness); *collapse* (loss of consciousness); *hepatitis* (fever with or without chills; skin

rash; swelling and/or tenderness in upper abdominal or stomach area; swollen and/or painful glands; unusual bleeding or bruising; unusual tiredness or weakness; yellow eyes or skin); *idiosyncratic reaction* (collapse, nausea, seizures, shock, and/or vomiting); *jaundice* (yellow eyes or skin); *seizures*; *shock* (cold and clammy skin; decreased blood pressure; difficulty in breathing; increased heart rate; pale skin); *thrombocytopenia* (pinpoint red spots on skin; unusual bleeding or bruising); *toxicity* (filaricidal action of the medication).

DIAGNOSTIC TESTS: *albuminuria*; *agranulocytosis*; *anemia*; *thrombocytopenia*.

Sympathomimetic Agents - Cardiovascular Use (Parenteral-Systemic)

Commercial name(s): *Adrenalin*; *Aramine*; *Dobutrex*; *Intropin*; *Isuprel*; *Levophed*; *Neo-Synephrine*; *Revimine*; *Vasoxyl*; *Wyamine*.

Category: Antiarrhythmic [Isoproterenol; Phenylephrine]; Cardiac stimulant [Dobutamine; Dopamine; Epinephrine]; Vasopressor [Dopamine; Ephedrine; Epinephrine; Mephentermine; Metaraminol; Methoxamine; Norepinephrine; Phenylephrine].

Conventional indications: Bradycardia (treatment) [Isoproterenol]; Hypotension, acute (prophylaxis and treatment) or Shock (treatment) [Sympathomimetic agents (except isoproterenol)]; Cardiac output, low (treatment) or Congestive heart failure (treatment) [Dobutamine]; Cardiac arrest (treatment) [Epinephrine]; Shock, anaphylactic (treatment) [Epinephrine]; Tachycardia, supraventricular, paroxysmal (treatment) [Phenylephrine].

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness*; *restlessness*.

HEAD: headache.

STOMACH: *nausea*; *vomiting*.

BLADDER: *polyuria* [Dopamine].

RESPIRATION: *dyspnea*.

CHEST: *angina*; *bradycardia*; *palpitations*; *tachycardia*.

GENERALITIES: *vasopressor*, *vasoconstriction*; *bradycardia*; *hypertension*; *hypotension*; *palpitations*; *tachycardia*; *allergic reaction* [preparations containing sulfites]; *hypokalemia* [Dobutamine and Epinephrine].

DIAGNOSTIC TESTS: *hypokalemia* [Dobutamine and Epinephrine].

Secondary Actions or Rebound Effects: *arrhythmias*, *ventricular*.

Tacrine (Systemic)

Commercial name(s): *Cognex*.

Category: Dementia symptoms treatment adjunct.

Conventional indications: Dementia of the Alzheimer's type, mild to moderate (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *aggression; irritability; mood or mental changes* (aggression, irritability, nervousness); *nervousness*.

VERTIGO: *dizziness; syncope* (fainting).

HEAD: *headache*.

EYE: *lacrimation, increased* (watering of eyes).

NOSE: *rhinitis* (runny nose).

MOUTH: *salivation, increased* (watering of mouth).

STOMACH: *anorexia* (loss of appetite); *dyspepsia* (indigestion); **nausea; vomiting; belching**.

ABDOMEN: **cramping; hepatotoxicity** (change in stool color [rare]; fever [infrequent]; yellow eyes or skin [rare]); **pain; granulomatous changes, liver; necrosis, hepatocellular**.

RECTUM: **diarrhea**.

BLADDER: *polyuria* (frequent urination or increased volume of urine); *obstruction, urinary* (trouble in urinating).

RESPIRATION: *hyperventilation* (fast breathing); *asthma* (cough; tightness in chest; trouble in breathing; wheezing).

CHEST: *bradycardia* (slow heartbeat); *palpitation* (fast or pounding heartbeat); *asthma* (cough; tightness in chest; trouble in breathing; wheezing); *tachycardia* (fast heartbeat).

EXTREMITIES: **ataxia** (clumsiness or unsteadiness); **myalgia** (muscle pain); *edema, peripheral* (swelling of feet or lower legs); *movement, slow; stiffness of arms or legs; trembling and shaking of hands and fingers*; weakness, muscular, increasing.

SLEEP: *insomnia* (trouble in sleeping).

FEVER: *fever*.

PERSPIRATION: *sweating, increased*.

SKIN: *flushing; rash*.

GENERALITIES: **myalgia** (muscle pain); *bradycardia* (slow heartbeat); *hypertension* (high blood pressure); *hypotension* (low blood pressure); *malaise* (general feeling of discomfort or illness); *palpitation* (fast or pounding heartbeat); *convulsions* (seizures) (associated with cholinergic effects, particularly diarrhea); *extrapyramidal effects, parkinsonian* (stiffness of arms or legs; slow movement; trembling and shaking of hands and fingers); *jaundice; movement, slow; tachycardia* (fast heartbeat); *convulsions* (seizures); *shock* (fast weak pulse; irregular breathing; large pupils); weakness, muscular, increasing (may lead to death if respiratory muscles are involved).

DIAGNOSTIC TESTS: **transaminase serum values, elevated; liver function tests, altered**.

Tacrolimus (Systemic)

Commercial name(s): *Prograf*.

Category: Immunosuppressant.

Conventional indications: Transplant rejection, solid organ (prophylaxis); Transplant rejection, solid organ (treatment); Graft-versus-host disease (prophylaxis); Graft-versus-host disease (treatment); Uveitis, severe, refractory (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: agitation; anxiety; confusion; depression; hallucinations (seeing or hearing things that are not there); nervousness.

VERTIGO: dizziness.

HEAD: headache.

VISION: *disturbance, visual* (blurred vision).

HEARING: *tinnitus* (ringing in ears); *hearing loss*.

STOMACH: appetite, loss of; nausea; vomiting; *gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *ulcer, stomach* (abdominal or stomach pain; cramping or burning; black, tarry stools; constipation; diarrhea; vomiting of blood or material that looks like coffee grounds; nausea; heartburn; indigestion).

ABDOMEN: pain, abdominal; *gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *hepatotoxicity* (flu-like symptoms); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: diarrhea.

KIDNEYS: nephrotoxicity; *failure, renal, acute* (lower back/side pain; decreased frequency /amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure).

URINE: *glycosuria* (sugar in the urine).

CHEST: effusion, pleural (shortness of breath); *cardiomyopathy* (shortness of breath); *arrhythmia, cardiac* (chest pain or discomfort; dizziness; fainting; fast, slow, or irregular heartbeat; lightheadedness; pounding or rapid pulse); *pain, chest*; *hypertrophy, myocardial, spontaneous* (enlarged heart); *Toursade de Pointes* (chest pain or discomfort; irregular or slow heart rate; fainting; shortness of breath).

EXTREMITIES: edema, peripheral (swelling of ankles, feet, or lower legs); tremor (trembling and shaking of hands); *cramps, muscle*; *neuropathy* (numbness or pain in legs); *osteoporosis*.

SLEEP: insomnia (trouble in sleeping).

DREAMS: abnormal dreams.

PERSPIRATION: *sweating*.

SKIN: pruritus (itching); rash.

GENERALITIES: *immunosuppression*; aplasia, red cell (fever and sore throat; pale skin; unusual bleeding or bruising; unusual tiredness or weakness); **asthenia** (loss of energy or weakness); **blood dyscrasias** (fever and sore throat; pale skin; unusual bleeding

or bruising; unusual tiredness or weakness); **hyperglycemia** (frequent urination); **hyperkalemia** (abdominal pain; nausea or vomiting; weakness); **hypomagnesemia** (muscle trembling or twitching); **infection** (fever or chills); **paresthesia** (tingling); **seizures**; *arrhythmia, cardiac* (chest pain or discomfort; dizziness; fainting; fast, slow, or irregular heartbeat; lightheadedness; pounding or rapid pulse); *cramps, muscle*; *hyperesthesia* (increased sensitivity to pain); *hyperlipidemia*; *hypertension*; *osteoporosis*; *anaphylaxis* (flushing of face or neck; shortness of breath; wheezing) [parenteral use]; *hemolytic-uremic syndrome* (black, tarry, stools; stomach pain; blood in urine; fever increased or decreased; urination; pinpoint red spots on skin; swelling of face, fingers, feet, or lower legs; unusual bleeding or bruising; unusual tiredness or weakness; yellow eyes or skin); *hepatotoxicity* (flu-like symptoms); *leukoencephalopathy* (back pain; blurred vision; confusion; convulsions; dizziness; drowsiness; fever; headache; unusual tiredness or weakness); *post transplant lymphoproliferative disease* (fever; general feeling of discomfort and illness; weight loss); *Stevens Johnson syndrome* (blistering; peeling; loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores; ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); death (in rats); diabetes, new-onset.
DIAGNOSTIC TESTS: **aplasia, red cell**; **hyperglycemia**; **hyperkalemia**; **hypomagnesemia**; *hyperlipidemia*; *glycosuria*; *QT prolongation*; *Toursade de Pointes*.

Tacrolimus (Topical)

Commercial name(s): *Protopic*.

Category: Immunomodulator (topical).

Conventional indications: Dermatitis, atopic, moderate to severe (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache*; *folliculitis* (burning, itching, or pain in hairy areas; pus at root of hair).

NOSE: *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath; troubled breathing; tightness of chest; wheezing).

FACE: *rosacea* (spider-like blood vessels on the face; burning or stinging sensation of face; redness of face).

STOMACH: *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain).

KIDNEYS: *failure, renal, acute* (agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness); *impairment, renal* (lower back/side pain; decreased frequency/amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure).

BACK: *pain, back*.

EXTREMITIES: *myalgia* (muscle aches or pain); *osteomyelitis* (increase in bone pain)

FEVER: fever (in pediatric patients).

SKIN: burning; pruritis (itching skin) (in pediatric patients); acne; rash; rash, vesiculobullous (skin blisters) (in pediatric patients); tingling, skin; carcinoma, basal cell (sore that will not heal; growth or bump on skin); carcinoma, squamous cell (small, red skin lesion, growth, or bump unusually on face, ears, neck, hands, or arms); impetigo, bullous (red rash with watery, yellow-colored, or pus filled blisters; thick yellow to honey-colored crusts); melanoma, malignant (new mole; change in size, shape or color of existing mole; mole that leaks fluid or bleeds); sarcoma, cutaneous; tumors, cutaneous.

GENERALITIES: flu like symptoms (cough; fever; headache; loss of appetite; general aches and pains; sneezing; weakness); **intolerance, alcohol** (skin flushing in areas of ointment application); allergic reaction (itching, pain, redness, or swelling of eye or eyelid; watering of eyes; troubled breathing or wheezing; severe skin rash or hives; flushing; headache; fever; chills; runny nose; increased sensitivity to sunlight; joint pain; swollen glands); cyst; hyperesthesia (increased skin sensitivity); myalgia (muscle aches or pain); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath; troubled breathing; tightness of chest; wheezing); carcinoma, basal cell (sore that will not heal; growth or bump on skin); carcinoma, squamous cell (small, red skin lesion, growth, or bump unusually on face, ears, neck, hands, or arms); lymphomas (swollen glands; weight loss; general feeling of illness; black, tarry stools; yellow skin and eyes); melanoma, malignant (new mole; change in size, shape or color of existing mole; mole that leaks fluid or bleeds); osteomyelitis (increase in bone pain); sarcoma, cutaneous; seizures (convulsions, muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); septicemia (fever; chills; looks very ill); tumors, cutaneous.

Tadalafil (Systemic)

Commercial name(s): *Adcirca*; *Cialis*.

Category: Impotence therapy agent (systemic).

Conventional indications: Erectile dysfunction (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness; hypotension, postural (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position); syncope (fainting); vertigo (dizziness or lightheadedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: headache; stroke (confusion; difficulty in speaking; slow speech; inability to speak; inability to move arms, legs, or facial muscles; double vision; headache).

EYE: conjunctivitis (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning; dry or itching eyes; discharge excessive; tearing); edema (swelling or puffiness of eye); lacrimation increased (watering of eyes); pain, eye; swelling of eyelids; neuropathy, optic, non-arteritic anterior ischemic (NAION) (blindness; blurred vision; decreased vision); occlusion, retinal vein (blurred vision; change in vision).

VISION: blurred vision; visual field defect (blurred vision; decrease or change in vision); changes in color vision.

NOSE: congestion; epistaxis (bloody nose).

FACE: edema (swelling or puffiness of face).

MOUTH: dryness.

THROAT: dysphagia (difficulty swallowing); esophagitis (difficulty in swallowing; pain or burning in throat; chest pain; heartburn; vomiting; sores, ulcers, or white spots on lips or tongue or inside the mouth); pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

EXTERNAL THROAT: pain, neck

STOMACH: dyspepsia (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); gastritis (burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion); nausea; reflux, gastroesophageal (heartburn; vomiting); vomiting.

ABDOMEN: pain, upper abdominal.

RECTUM: diarrhea.

STOOL: loose stools.

GENITALIA MALE: erection, prolonged and/or increased; erection, spontaneous; priapism (painful or prolonged erection of the penis).

RESPIRATION: dyspnea (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: angina pectoris (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea); infarction, myocardial (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); pain, chest; palpitations (irregular heartbeat); tachycardia (fast, pounding, or irregular heartbeat or pulse).

BACK: pain, back.

EXTREMITIES: arthralgia (muscle or joint pain); myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); pain in limbs.

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep); somnolence (sleepiness or unusual drowsiness).

PERSPIRATION: sweating.

SKIN: flushing (feeling of warmth redness of the face, neck, arms and occasionally, upper chest); pruritus (itching skin); rash; dermatitis, exfoliative (cracks in the skin; loss of heat from the body; red, swollen skin; scaly skin); urticaria (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: arthralgia (muscle or joint pain); asthenia (lack or loss of strength); fatigue (unusual tiredness or weakness); flushing (feeling of warmth redness of the face, neck, arms and occasionally, upper chest); hypertension (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); hypesthesia (reduced sensitivity to touch); hypotension (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); hypotension, postural (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position);

infarction, myocardial (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); pain; palpitations (irregular heartbeat); paresthesia (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); tachycardia (fast, pounding, or irregular heartbeat or pulse); *death, cardiac, sudden*; *hypersensitivity reactions* (abdominal or stomach pain; diarrhea; fever; joint or muscle pain; nausea; numbness or tingling of face, hands, or feet; redness and soreness of eyes; skin rash; shortness of breath; sores in mouth; swelling of feet or lower legs; vomiting); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *stroke* (confusion; difficulty in speaking; slow speech; inability to speak; inability to move arms, legs, or facial muscles; double vision; headache).

Talc (Intrapleural-Local)

Commercial name(s): *Sclerosol*.

Category: Sclerosing agent, intrapleural.

Conventional indications: Pleural effusions, malignant, recurrence (prophylaxis).

Primary Actions or Pathogenetic Symptoms

RESPIRATION: *dyspnea* (shortness of breath); *respiratory distress syndrome, acute (ARDS)*.

COUGH: *hemoptysis* (coughing or spitting up blood).

CHEST: *emboli, pulmonary* (shortness of breath or troubled breathing); *fistula, bronchopleural* (shortness of breath or troubled breathing); *hemoptysis* (coughing or spitting up blood); *pneumonitis, acute*; *thickening, pleural, extensive, with calcification*.

GENERALITIES: *pain*; *empyema* (fever; shortness of breath or troubled breathing).

Tamoxifen (Systemic)

Commercial name(s): *Apo-Tamox*; *Gen-Tamoxifen*; *Nolvadex*; *Nolvadex-D*; *Novo-Tamoxifen*; *PMS-Tamoxifen*; *Tamofen*; *Tamone*.

Category: Antineoplastic.

Conventional indications: Carcinoma, breast (treatment); Carcinoma, breast (prophylaxis); Carcinoma, breast, ductal, in situ (prophylaxis); Melanoma, malignant (treatment); Carcinoma, endometrial (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion*; *depression* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping) (in females).

HEAD: *hair thinning or partial loss*; *headache*.

EYE: *cataracts*; *keratopathy*; *neuritis, optic* (blurred vision); *retinopathy*; *angioedema* (large, hive-like swelling on eyelids).

FACE: *hot flashes* (feeling of warmth redness of the face; sudden sweating); *angioedema* (large, hive-like swelling on face, lips) (in females).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

EXTERNAL THROAT: *hot flashes* (feeling of warmth redness of the neck; sudden sweating) (in females).

STOMACH: *nausea*; *anorexia* (loss of appetite; weight loss) (in females); *vomiting, mild*.

ABDOMEN: *cramps, abdominal* (in females); *hepatotoxicity* (yellow eyes or skin; elevated hepatic enzyme values); *cholestasis*; *fatty liver* (hepatic steatosis); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pain in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: *constipation* (in females).

GENITALIA MALE: *impotence* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection); *sexual interest, decrease in* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection); *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *amenorrhea* (absent, missed, or irregular menstrual periods; stopping of menstrual bleeding); *bleed, vaginal*; *discharge, vaginal* (white or brownish vaginal discharge); *menses, altered*; *menstrual disorder* (menstrual changes); *oligomenorrhea* (absent, missed or irregular menstrual periods; stopping of menstrual bleeding); *carcinoma, endometrial* (change in vaginal discharge; pain or feeling of pressure in pelvis; vaginal bleeding); *cyst, ovarian* (bloating; stomach or pelvic discomfort, aching, or heaviness); *hyperplasia, endometrial* (change in vaginal discharge; pain or feeling of pressure in pelvis; vaginal bleeding); *itching in genital area*; *menstrual period, changes in*; *polyps, endometrial* (change in vaginal discharge; pain or feeling of pressure in pelvis; vaginal bleeding); *angioedema* (large, hive-like swelling on sex organs); *ovulation, induced*; *sarcoma, uterine* (including malignant mixed mullerian tumors).

COUGH: *cough* (in females).

CHEST: *hot flashes* (feeling of warmth redness of the upper chest; sudden sweating) (in females); *embolism, pulmonary* (anxiety; chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness); *pneumonitis, interstitial* (cough; difficult breathing; fever; shortness of breath).

BACK: *compression, spinal cord*.

EXTREMITIES: *hot flashes* (feeling of warmth redness of the arms; sudden sweating) (in females); *pain, bone* (in females); *pain, musculoskeletal* (muscle or bone pain) (in females); *thrombosis* (pain or swelling in legs); *angioedema* (large, hive-like swelling on hands, legs, feet); *pain, tumor*.

SLEEP: *sleepiness*.

SKIN: *skin changes* (in females); *dryness*; *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or

weakness); hair thinning or partial loss; pemphigoid, bullous (blistering, peeling, or loosening of skin and mucous membranes; large, hard skin blisters); rash.

GENERALITIES: fluid retention (decrease in amount of urine; noisy, rattling breathing; shortness of breath; swelling of fingers, hands, feet, or lower legs; troubled breathing at rest; weight gain) (in females); **hot flashes** (feeling of warmth redness of the face, neck, arms and occasionally, upper chest; sudden sweating) (in females); **pain, bone** (in females); **weight gain or loss** (in females); allergy (dizziness; fast heartbeat; shortness of breath; skin rash or itching over the entire body; sweating; weakness; wheezing) (in females); carcinoma, endometrial (change in vaginal discharge; pain or feeling of pressure in pelvis; vaginal bleeding); disease flare, transient local (bone pain; hypercalcemia and/or spinal cord compression; sudden increase in the size of pre-existing lesions in patients with soft tissue disease); edema (swelling) (in females); erythema multiforme (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); fatigue (unusual tiredness or weakness) (in females); hair thinning or partial loss; infection (chills; confusion; cough or hoarseness; dizziness; fainting; fast heartbeat; fever; lightheadedness; lower back or side pain; painful or difficult urination; rapid shallow breathing) (in females); pain (in females); pain, musculoskeletal (muscle or bone pain) (in females); sepsis (chills; confusion; cough or hoarseness; dizziness; fainting; fast heartbeat; fever; lightheadedness; lower back or side pain; painful or difficult urination; rapid shallow breathing) (in females); Stevens-Johnson syndrome (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); thrombocytopenia (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising) (in females); thrombosis, deep vein (pain, redness, or swelling in arm or leg) (in females); weakness; angioedema; hepatitis; hypercalcemia; lesions, sudden increase in the size of pre-existing (in patients with soft tissue disease); pain, tumor; phlebitis, superficial (bluish color changes in skin color; pain, tenderness, swelling of foot or leg) (in females); neurotoxicity, acute (tremors, hyperflexia, unsteady gait, dizziness).

DIAGNOSTIC TESTS: *fatty liver* (hepatic steatosis); *hepatic enzyme values, elevated*; *hypercalcemia*; QT intervals, prolonged.

Secondary Actions or Rebound Effects: disease flare, transient local (bone pain; hypercalcemia and/or spinal cord compression; sudden increase in the size of pre-existing lesions in patients with soft tissue disease).

Tamsulosin (Systemic)

Commercial name(s): *Flomax*.

Category: Benign prostatic hyperplasia therapy agent.

Conventional indications: Benign prostatic hyperplasia (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: **dizziness**; *hypotension, orthostatic* (dizziness, fainting, or lightheadedness, especially when getting up from a lying or sitting position).

HEAD: **headache.**

NOSE: **rhinitis** (stuffy or runny nose).

STOMACH: *nausea.*

GENITALIA MALE: **ejaculation, abnormal**; *libido, decreased.*

GENITALIA FEMALE: *libido, decreased.*

CHEST: *pain, chest.*

BACK: **pain, back.**

SLEEP: *drowsiness; insomnia* (difficulty in sleeping).

GENERALITIES: **asthenia** (unusual weakness); *hypotension, orthostatic* (dizziness, fainting, or lightheadedness, especially when getting up from a lying or sitting position).

Tazarotene (Topical)

Commercial name(s): *Tazorac.*

Category: Antiacne agent (topical); Antipsoriatic (topical).

Conventional indications: Acne vulgaris (treatment); Psoriasis (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: **burning sensation of the skin, mild to severe**; **desquamation, mild to severe** (severe peeling of skin; severe dryness of skin); **discoloration** (change in color of treated skin); **erythema, mild to severe** (severe redness of skin); **fissuring of skin** (deep grooves or lines in skin); **pruritus, mild to severe** (severe itching of skin); **retinoid reaction** (erythema, peeling of skin, and stinging or burning sensation of skin); **stinging sensation of the skin, mild to severe**; *dermatitis, contact, irritant* (skin rash) (patients with psoriasis).

GENERALITIES: **edema, localized** (pain or swelling of treated skin).

Technetium (99m Tc) Fanolesomab (Systemic)

Commercial name(s): *NeutroSpec.*

Category: Diagnostic aid, radioactive (appendicitis).

Conventional indications: Appendicitis (diagnosis adjunct).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness; syncope* (fainting).

HEAD: *headache.*

FACE: *flushing* (feeling of warmth; redness of the face).

EXTERNAL THROAT: *flushing* (feeling of warmth; redness of the neck).

STOMACH: *nausea.*

RESPIRATION: *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: *flushing* (feeling of warmth; redness of the upper chest); *pressure in chest.*

EXTREMITIES: *flushing* (feeling of warmth; redness of the arms).

SKIN: *flushing* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest).

GENERALITIES: *flushing* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest); *burning, injection site; erythema, injection site* (flushing, redness of skin; unusually warm skin); *hypersensitivity reactions, serious* (in sensitive individuals); *hypotension* (blurred vision; confusion; dizziness; faintness or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); *pain; paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *sepsis, worsening* (chills; confusion; dizziness; lightheadedness; fainting; fast heartbeat; fever; rapid, shallow breathing).

DIAGNOSTIC TESTS: *saturated oxygen, decreased.*

Technetium Tc 99m (Pyro- and trimeta-) Phosphates (Systemic)

Commercial name(s): *Pyrolite.*

Category: Diagnostic aid, radioactive (bone disease; cardiac disease; gastrointestinal bleeding [without Tc 99m label]).

Conventional indications: *For technetium Tc 99m (pyro- and trimeta-) phosphates:* Skeletal imaging, radionuclide; Cardiac imaging, radionuclide. *For sodium (pyro- and trimeta-) phosphates without Tc 99m label:* Red blood cells, labeling of [Intravenous injection].

Primary Actions or Pathogenetic Symptoms

SKIN: *allergic reaction* (skin rash, hives, or itching).

Technetium Tc 99m Albumin (Systemic)

Commercial name(s): *Frosstimage Albumin; Technetium Tc 99m HAS.*

Category: Diagnostic aid, radioactive (cardiac disease).

Conventional indications: Cardiac blood pool imaging, radionuclide.

Primary Actions or Pathogenetic Symptoms

SKIN: *allergic reaction* (shortness of breath; skin rash).

GENERALITIES: *allergic reaction* (shortness of breath; skin rash).

Technetium Tc 99m Albumin Aggregated (Systemic)

Commercial name(s): *AN-MAA; Frosstimage MAA; MPI MAA; Macrotec; Pulmolite; TechneScan MAA.*

Category: Diagnostic aid, radioactive (pulmonary disease; vascular disorders); Chemotherapy adjunct.

Conventional indications: Lung imaging, radionuclide; Venography, radionuclide; LeVeen peritoneovenous shunt patency assessment [Intraperitoneal technetium Tc 99m albumin aggregated]; Chemotherapy, intra-arterial, infusion adjunct.

Primary Actions or Pathogenetic Symptoms

FACE: flushing; redness.

STOMACH: *nausea.*

RESPIRATION: *cyanosis* (bluish discoloration of skin), *troubled breathing*; *wheezing*; *distress*, *respiratory*, *severe*.

CHEST: *tightness in chest.*

EXTREMITIES: *cyanosis* (bluish discoloration of skin).

PERSPIRATION: *sweating*, *increased.*

GENERALITIES: *cyanosis* (bluish discoloration of skin); *allergic reactions*; *hemodynamic reactions*; *idiosyncratic reactions.*

Technetium Tc 99m Apcitide (Systemic)

Commercial name(s): *AcuTect.*

Category: Diagnostic aid, radioactive (thrombosis).

Conventional indications: Thrombosis, deep venous (diagnosis).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache, mild.*

GENERALITIES: *hypertension, mild*; *hypotension, mild to severe*; *pain, mild.*

Technetium Tc 99m Arcitumomab (Systemic)

Commercial name(s): *CEA-Scan.*

Category: Diagnostic aid, radioactive (colorectal disease).

Conventional indications: Carcinoma, colorectal (diagnosis adjunct).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache.*

STOMACH: *nausea.*

EXTREMITIES: *bursitis* (pain and inflammation at the joints).

FEVER: *fever.*

GENERALITIES: *allergic reaction, mild, transient* (anaphylaxis, itching; skin rash); *bursitis* (pain and inflammation at the joints); *eosinophilia, transient.*

DIAGNOSTIC TESTS: *eosinophilia, transient.*

Technetium Tc 99m Bicisate (Systemic)

Commercial name(s): *Neurolite.*

Category: Diagnostic aid, radioactive (cerebrovascular disease).

Conventional indications: Brain imaging, radionuclide.

Primary Actions or Pathogenetic Symptoms

MIND: *agitation; anxiety; hallucinations.*

VERTIGO: *dizziness.*

HEAD: *headache.*

NOSE: *parosomia* (transient, mild, pleasant aromatic odor).

STOMACH: *nausea.*

RESPIRATION: *difficulty breathing.*

CHEST: *angina* (chest pain).

SLEEP: *drowsiness.*

SKIN: *rash.*

GENERALITIES: *hypertension; seizures.*

Technetium Tc 99m Disofenin (Systemic)

Commercial name(s): *Hepatolite.*

Category: Diagnostic aid, radioactive (hepatobiliary disorders).

Conventional indications: Hepatobiliary imaging, radionuclide.

Primary Actions or Pathogenetic Symptoms

There are no known side/adverse effects associated with the use of technetium Tc 99m disofenin.

Technetium Tc 99m Exametazime (Systemic)

Commercial name(s): *Ceretec.*

Category: Diagnostic aid, radioactive (cerebrovascular disease; inflammatory disease).

Conventional indications: Brain imaging, radionuclide; Leukocytes, labeling of; Inflammatory lesions, intra-abdominal (diagnosis); Bowel disease, inflammatory (diagnosis); Dementia, Alzheimer-type (diagnosis); Epilepsy (diagnosis); Brain death (diagnosis).

Primary Actions or Pathogenetic Symptoms

GENERALITIES: allergic reaction (fever; skin rash; swelling of face); blood pressure, transient increase in.

Technetium Tc 99m Mebrofenin (Systemic)

Commercial name(s): *Choletec.*

Category: Diagnostic aid, radioactive (hepatobiliary disorders).

Conventional indications: Hepatobiliary imaging, radionuclide.

Primary Actions or Pathogenetic Symptoms

There are no known side/adverse effects associated with the use of technetium Tc 99m mebrofenin. However, chills, nausea, and skin rash have been reported with other iminodiacetic acid (IDA) derivatives.

Technetium Tc 99m Medronate (Systemic)

Commercial name(s): *AN-MDP; Frosstimage MDP; MDP-Squibb; MPI MDP; Osteolite; TechnoScan MDP.*

Category: Diagnostic aid, radioactive (bone disease).

Conventional indications: Skeletal imaging, radionuclide.

Primary Actions or Pathogenetic Symptoms

SKIN: allergic reaction (skin rash, hives, or itching).

Technetium Tc 99m Mertiatide (Systemic)

Commercial name(s): *TechnoScan MAG3.*

Category: Diagnostic aid, radioactive (renal disorders).

Conventional indications: Renal imaging, radionuclide; Renal function studies; Cystography, voiding, indirect, radionuclide; Urinary bladder imaging, radionuclide.

Primary Actions or Pathogenetic Symptoms

STOMACH: nausea; vomiting.

CHEST: tachycardia (fast or pounding heartbeat).

CHILL: chills.

FEVER: fever.

GENERALITIES: allergic reaction (skin rash or itching, wheezing or troubled breathing); blood pressure, increased; seizures (convulsions); tachycardia (fast or pounding heartbeat).

Technetium Tc 99m Oxidronate (Systemic)

Commercial name(s): *Osteoscan-HDP.*

Category: Diagnostic aid, radioactive (bone disease).

Conventional indications: Skeletal imaging, radionuclide.

Primary Actions or Pathogenetic Symptoms

STOMACH: nausea; vomiting.

SKIN: allergic reaction (flushing or redness of skin).

Technetium Tc 99m Pentetate (Systemic)

Commercial name(s): *AN-DTPA; DTPA (Chelate) Multidose; Frosstimage DTPA; Technescan DTPA; Techneplex.*

Category: Diagnostic aid, radioactive (renal disorders; intracranial lesions; cerebrospinal fluid disorders; pulmonary disease).

Conventional indications: Renal imaging, radionuclide; Renal perfusion studies; Glomerular filtration rate determination; Brain imaging, radionuclide; Cisternography, radionuclide; Lung imaging, radionuclide [inhalation].

Primary Actions or Pathogenetic Symptoms

SKIN: allergic reaction (skin rash, hives, or itching).

Technetium Tc 99m Pyrophosphate (Systemic)

Commercial name(s): *MPI Pyrophosphate; Phosphotec; Technescan PYP.*

Category: Diagnostic aid, radioactive (bone disease; cardiac disease; gastrointestinal bleeding [without Tc 99m label]).

Conventional indications: *For technetium Tc 99m pyrophosphate:* Skeletal imaging, radionuclide; Cardiac imaging, radionuclide. *For sodium pyrophosphate without Tc 99m label:* Red blood cells, labeling of [Intravenous injection]; Cardiac blood pool imaging, radionuclide; Bleeding, gastrointestinal (diagnosis).

Primary Actions or Pathogenetic Symptoms

SKIN: allergic reaction (skin rash, hives, or itching).

Technetium Tc 99m Sestamibi (Systemic)

Commercial name(s): *Cardiolite.*

Category: Diagnostic aid, radioactive (cardiac disease).

Conventional indications: Cardiac imaging, radionuclide; Myocardial infarction (diagnosis); Myocardial perfusion imaging, radionuclide; Ischemia, myocardial (diagnosis); Cardiac ventricular function assessment; Cardiac wall-motion abnormalities assessment; Stress electrocardiography adjunct; Parathyroid imaging, radionuclide; Thyroid imaging, radionuclide.

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

MOUTH: taste, metallic or bitter.

SKIN: flushing; rash.

GENERALITIES: *hypersensitivity, severe* (dyspnea, hypotension, bradycardia, asthenia, vomiting).

Technetium Tc 99m Succimer (Systemic)

Commercial name(s): *MPI DMSA Kidney Reagent.*

Category: Diagnostic aid, radioactive (renal disorders).

Conventional indications: Renal imaging, radionuclide.

Primary Actions or Pathogenetic Symptoms

VERTIGO: *syncope* (fainting).

STOMACH: *nausea; pain.*

FEVER: *fever.*

SKIN: *flushing; rash; redness.*

Technetium Tc 99m Sulfur Colloid (Systemic)

Commercial name(s): *CIS-Sulfur Colloid; Frosstimage Sulfur Colloid; TSC.*

Category: Diagnostic aid, radioactive (hepatic disease; hematological disease; spleen disease; gastroesophageal disorders; lymphatic system disease; gastrointestinal disorders).

Conventional indications: Liver imaging, radionuclide; Spleen imaging, radionuclide; Bone marrow imaging, radionuclide; Esophageal imaging, radionuclide; LeVeen peritoneovenous shunt patency assessment [Intraperitoneal technetium Tc 99m sulfur colloid]; Lymphoscintigraphy; Bleeding, gastrointestinal (diagnosis); Gastric emptying studies; Peritoneal scintigraphy.

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

STOMACH: *nausea; vomiting.*

RESPIRATION: *arrest, cardiopulmonary; bronchospasm with or without pulmonary edema* (severe wheezing or troubled breathing).

CHEST: *arrest, cardiopulmonary; bronchospasm with or without pulmonary edema* (severe wheezing or troubled breathing); *heartbeat, slow or irregular.*

FEVER: *fever.*

GENERALITIES: *allergic reaction* (coughing or choking; flushing or redness of face; skin rash, hives, or itching; swelling of throat, hands, or feet; wheezing, tightness in chest, or troubled breathing); *anaphylactic reaction; burning sensation at injection site; heartbeat, slow or irregular; hypotension* (severe tiredness or weakness); *pain at injection site; seizures.*

Technetium Tc 99m Teboroxime (Systemic)

Commercial name(s): *CardioTec.*

Category: Diagnostic aid, radioactive (cardiac disease).

Conventional indications: Cardiac imaging, radionuclide; Myocardial infarction (diagnosis); Myocardial perfusion imaging, radionuclide.

Primary Actions or Pathogenetic Symptoms

FACE: *swelling of face.*

MOUTH: *taste, metallic.*

STOMACH: *nausea.*

EXTREMITIES: *numbness of hand and arm.*

GENERALITIES: *burning sensation at injection site; hypotension.*

Technetium Tc 99m Tetrofosmin (Systemic)

Commercial name(s): *Myoview.*

Category: Diagnostic aid, radioactive (cardiac disease).

Conventional indications: Cardiac imaging, radionuclide; Myocardial infarction (diagnosis); Myocardial perfusion imaging, radionuclide.

Primary Actions or Pathogenetic Symptoms

NOSE: *smell, unusual.*

MOUTH: *burning sensation in hard palate; taste, metallic.*

STOMACH: *discomfort; vomiting.*

ABDOMEN: *discomfort, abdominal.*

CHEST: *angina* (chest pain).

GENERALITIES: *hypotension* (lightheadedness; dizziness); *allergic reaction* (skin rash; troubled breathing); *hypertension.*

Tegaserod (Systemic)

Commercial name(s): *Zelnorm.*

Category: Serotonin agonist.

Conventional indications: Bowel syndrome, irritable (treatment); Constipation, idiopathic, chronic (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness; syncope* (fainting); hypotension, orthostatic (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position).

HEAD: *headache; migraine* (headache, severe and throbbing).

FACE: *edema, facial* (swelling or puffiness of face); *flushing* (feeling of warmth; redness of the face).

EXTERNAL THROAT: *flushing* (feeling of warmth; redness of the neck).

STOMACH: *nausea; pain, abdominal, new or worsening* (stomach pain); vomiting.

ABDOMEN: *flatulence* (bloated, full feeling; excess air or gas in stomach or intestines; passing gas); *pain, abdominal, new or worsening* (stomach pain); *cholecystitis with elevated transaminases* (indigestion; stomach pain; severe nausea; vomiting); *colitis, ischemic* (abdominal pain and tenderness; bloody stools; rectal bleeding); *gangrenous bowel* (bloody diarrhea; new or worsening abdominal pain; rectal bleeding); *ischemia, mesenteric* (abdominal pain, usually after eating a meal; constipation; diarrhea; nausea;

vomiting); *spasm, sphincter of Oddi* (severe stomach pain with nausea and vomiting); *stone, bile duct* (severe stomach pain with nausea and vomiting).

RECTUM: *diarrhea; bleeding, rectal* (black, tarry stools; blood in stools).

CHEST: *flushing* (feeling of warmth; redness of the upper chest).

BACK: *pain, back.*

EXTREMITIES: *arthropathy* (disease or abnormality of the joint); *flushing* (feeling of warmth; redness of the arms); *pain, leg.*

SKIN: *flushing* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest); *pruritus* (itching skin).

GENERALITIES: *arthropathy* (disease or abnormality of the joint); *flushing* (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest); hypotension, orthostatic (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position).

DIAGNOSTIC TESTS: *stone, bile duct* (choledocholithiasis); *transaminases, elevated, with cholecystitis.*

Telithromycin (Systemic)

Commercial name(s): *Ketek.*

Category: Antibacterial (systemic).

Conventional indications: Bronchitis, chronic (treatment); Pharyngitis (treatment); Tonsillitis (treatment); Pneumonia, community-acquired (treatment); Sinusitis, acute bacterial (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety* (fear; nervousness); *attention, disturbed; nervousness.*

VERTIGO: *dizziness; vertigo* (dizziness or lightheadedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: *headache.*

EYE: *angioedema* (large, hive-like swelling on eyelids).

VISION: *blurred vision; focusing eyes, difficulty; diplopia* (double vision; seeing double).

NOSE: *parosmia* (change in sense of smell).

FACE: *dry lips; edema, facial* (swelling or puffiness of face); *flushing* (feeling of warmth, redness of the face); *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *ageusia* (loss of sense of taste); *candidiasis, oral* (sore mouth or tongue; white patches in mouth and/or on tongue); *dryness; dysgeusia* (loss of taste; change in taste); *glossitis* (redness, swelling, or soreness of tongue); *stomatitis* (swelling or inflammation of the mouth); *angioedema* (large, hive-like swelling on tongue).

TEETH: *discoloration, tooth.*

THROAT: *esophagitis* (difficulty in swallowing; pain or burning in throat; chest pain; heartburn; vomiting; sores, ulcers, or white spots on lips or tongue or inside the mouth); *angioedema* (large, hive-like swelling on throat).

EXTERNAL THROAT: *flushing* (feeling of warmth, redness of the neck).

STOMACH: *nausea*; *anorexia* (loss of appetite; weight loss); *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); *eructation* (belching; bloated full feeling; excess air or gas in stomach); *gastritis* (burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion); *gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *pain, abdominal* (stomach pain); *pain, upper abdominal* (upper stomach pain); *upset, gastrointestinal* (diarrhea; loss of appetite; nausea; vomiting; stomach cramps or pain); *vomiting*.

ABDOMEN: *distention, abdominal* (swelling of abdominal or stomach area; full or bloated feeling or pressure in the stomach); *flatulence* (bloated full feeling; excess air or gas in stomach or intestines; passing gas); *gastroenteritis* (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); *pain, abdominal* (stomach pain); *pain, upper abdominal* (upper stomach pain); *upset, gastrointestinal* (diarrhea; loss of appetite; nausea; vomiting; stomach cramps or pain); *bilirubin, blood, elevated*; *colitis, antibiotic associated* (stomach cramps, tenderness, or pain; watery or bloody diarrhea; fever).

RECTUM: *diarrhea*; *constipation* (difficulty having a bowel movement [tool]).

STOOL: *loose stools*; *watery stools*.

BLADDER: *polyuria* (frequent urination; increased volume of pale, dilute urine).

URINE: *discoloration, urine*.

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *candidiasis, vaginal* (itching of the vagina or outside genitals pain during sexual intercourse; thick, white curd-like vaginal discharge without odor or with mild odor); *irritation, vaginal* (vaginal burning or itching); *vaginitis* (itching of the vagina or genital area; pain during sexual intercourse; thick, white vaginal discharge with no odor or with a mild odor); *vaginosis, fungal* (change in the color, amount or odor of vaginal discharge); *angioedema* (large, hive-like swelling on sex organs).

CHEST: *flushing* (feeling of warmth, redness of the upper chest); *palpitation* (fast, irregular, pounding, or racing heartbeat or pulse); *arrhythmias, atrial* (dizziness; fainting; fast, slow, or irregular heartbeat); *bradycardia* (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness).

EXTREMITIES: *cramps, muscle*; *flushing* (feeling of warmth, redness of the arms); *tremor* (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet); *angioedema* (large, hive-like swelling on hands, legs, feet); *myasthenia gravis, exacerbation* (difficulty in breathing, chewing, swallowing, or talking; double vision; drooping eyelids; muscle weakness; severe tiredness).

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep); *somnolence* (sleepiness or unusual drowsiness).

DREAMS: *abnormal dream*.

PERSPIRATION: *sweating, increased*.

SKIN: *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *dryness*; *eczema* (skin rash encrusted, scaly and oozing); *flushing* (feeling of warmth, redness of the face, neck, arms and occasionally, upper chest); *pruritus* (itching skin); *rash*; *urticaria* (hives or welts; itching, redness of skin; skin rash).

GENERALITIES: **erythema multiforme** (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); **hepatitis (with or without jaundice)** (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); asthenia (lack or loss of strength); cramps, muscle; fatigue (unusual tiredness or weakness); flushing (feeling of warmth, redness of the face, neck, arms and occasionally, upper chest); palpitation (fast, irregular, pounding, or racing heartbeat or pulse); paresthesias (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); vasculitis (redness, soreness or itching skin; fever; sores, welting or blisters); allergic reaction, severe (cough; difficulty swallowing; dizziness; fast heartbeat; hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); anaphylaxis (cough; difficulty swallowing; dizziness; fast heartbeat; hives, itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); angioedema; arrhythmias, atrial (dizziness; fainting; fast, slow, or irregular heartbeat); bilirubin, blood, elevated; bradycardia (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); eosinophilia (increased eosinophil count); hyperkalemia (abdominal pain; confusion; irregular heartbeat; nausea or vomiting; nervousness; numbness or tingling in hands, feet, or lips; shortness of breath; difficult breathing; weakness or heaviness of legs); hypokalemia (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); hypotension (blurred vision; confusion; dizziness; faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); myasthenia gravis, exacerbation (difficulty in breathing, chewing, swallowing, or talking; double vision; drooping eyelids; muscle weakness; severe tiredness).

DIAGNOSTIC TESTS: discoloration, urine; liver function test results, abnormal (lab results that show problems with liver); platelet count, increased; alkaline phosphatase, blood, increased; bilirubin, blood, elevated; eosinophilia; hyperkalemia; hypokalemia.

Telmisartan (Systemic)

Commercial name(s): Micardis.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: nervousness.

VERTIGO: dizziness; syncope (dizziness, lightheadedness, or fainting).

HEAD: headache.

EYE: edema, angioneurotic (large, hive-like swelling on eyelids).

VISION: *changes in vision.*

NOSE: *sinusitis (headache; stuffy nose).*

FACE: *edema, angioneurotic (large, hive-like swelling on face, lips); edema, facial (swelling or puffiness of face).*

MOUTH: *dryness; edema, angioneurotic (large, hive-like swelling on tongue).*

THROAT: *pharyngitis (sore throat); edema, angioneurotic (large, hive-like swelling on throat).*

STOMACH: *appetite changes; dyspepsia (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); nausea; reflux, acid (heartburn).*

ABDOMEN: *flatulence (bloating or gas); pain, abdominal.*

RECTUM: *diarrhea.*

BLADDER: *infection, urinary tract (painful urination or changes in urinary frequency).*

KIDNEYS: *infection, urinary tract (painful urination or changes in urinary frequency).*

GENITALIA MALE: *edema, angioneurotic (large, hive-like swelling on sex organs); erectile dysfunction (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection).*

GENITALIA FEMALE: *edema, angioneurotic (large, hive-like swelling on sex organs).*

RESPIRATION: *infection, upper respiratory tract (coughing; ear congestion or pain; fever; head congestion; nasal congestion; runny nose; sneezing; sore throat).*

COUGH: *coughing.*

CHEST: *congestive heart failure (chest pain; decreased urine output; dilated neck veins; extreme fatigue; irregular breathing; irregular heartbeat; shortness of breath; swelling of face, fingers, feet, or lower legs; tightness in chest; troubled breathing; weight gain; wheezing); fibrillation, atrial (fast or irregular heartbeat; dizziness; fainting); infarction, myocardial (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); pain, chest; tachycardia (fast heartbeat); bradycardia (slow heartbeat).*

BACK: *pain, back*

EXTREMITIES: *edema in extremities (swelling in hands, lower legs, and feet); pain, muscle; spasm, muscle; cramps, muscle (including leg cramps); edema, angioneurotic (large, hive-like swelling on hands, legs, feet); myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); rhabdomyolysis (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness)*

PERSPIRATION: *sweating, increased*

SKIN: *rash; erythema (flushing; redness of skin; unusually warm skin); urticaria (hives or welts; itching; redness of skin; skin rash)*

GENERALITIES: *hypotension (dizziness, lightheadedness, or fainting); fatigue (general tiredness or weakness); infection, upper respiratory tract (coughing; ear congestion or pain; fever; head congestion; nasal congestion; runny nose; sneezing; sore throat); pain, muscle; sinusitis (headache; stuffy nose); spasm, muscle; angioedema (large hives); asthenia (lack or loss of strength); blood pressure, increased (headache; dizziness; weakness, numbness or tingling in arms or legs; trouble thinking, speaking or walking); cramps, muscle; edema (swelling); fibrillation, atrial (fast or irregular heartbeat; dizziness; fainting); infarction, myocardial (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck);*

shortness of breath; nausea; sweating; vomiting); *hyperkalemia* (abdominal pain; confusion; irregular heartbeat; nausea or vomiting; nervousness; numbness or tingling in hands, feet, or lips; shortness of breath; difficult breathing; weakness or heaviness of legs); *hypersensitivity* (fast heartbeat; fever; hives; itching; irritation; hoarseness; joint pain, stiffness, or swelling; rash; redness of skin; shortness of breath; swelling of eyelids, face, lips, hands, or feet; tightness in chest; troubled breathing or swallowing; wheezing); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *tachycardia* (fast heartbeat); *weakness*; bradycardia (slow heartbeat).

DIAGNOSTIC TESTS: *fibrillation, atrial, hyperkalemia.*

Secondary Actions or Rebound Effects: *hypertension, aggravated* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat).

Telmisartan and Hydrochlorothiazide (Systemic)

Commercial name(s): *Micardis HCT; Micardis Plus.*

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache.*

EYE: *angioedema* (large; hive-like swelling on eyelids).

NOSE: *sinusitis* (pain or tenderness around eyes and cheekbones, fever, stuffy or runny nose, headache, cough).

FACE: *angioedema* (large; hive-like swelling on face; lips).

MOUTH: *angioedema* (large; hive-like swelling on tongue).

THROAT: *pharyngitis* (dryness or soreness of throat, fever, hoarseness, tender, swollen glands in neck, trouble in swallowing, or voice changes); *angioedema* (large; hive-like swelling on throat).

STOMACH: *dyspepsia* (acid or sour stomach, belching, heartburn, indigestion, or stomach discomfort upset or pain); *nausea*; *vomiting*.

ABDOMEN: *pain, abdominal.*

RECTUM: *diarrhea.*

BLADDER: *infection, urinary tract* (difficulty in urinating; frequent urge to urinate; painful urination).

KIDNEYS: *infection, urinary tract* (difficulty in urinating; frequent urge to urinate; painful urination).

GENITALIA MALE: *angioedema* (large; hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large; hive-like swelling on sex organs).

RESPIRATION: **infection, upper respiratory tract** (cough; runny or stuffy nose; sore throat); bronchitis (cough producing mucus, difficulty breathing, shortness of breath, chest tightness).

COUGH: cough.

CHEST: bronchitis (cough producing mucus, difficulty breathing, shortness of breath, chest tightness); tachycardia (fainting; fast, pounding, or irregular heartbeat, or pulse palpitations); bradycardia (slow or irregular heartbeats; lightheadedness) [Telmisartan].

BACK: pain, back.

EXTREMITIES: angioedema (large; hive-like swelling on hands; legs; feet).

SKIN: rash.

GENERALITIES: hypotension (blurred vision; confusion; dizziness; faintness, or lightheadedness when getting up from a lying or sitting position sudden sweating; unusual tiredness or weakness); **infection, upper respiratory tract** (cough; runny or stuffy nose; sore throat); fatigue; hypokalemia (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); influenza-like symptoms (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); pain; tachycardia (fainting; fast, pounding, or irregular heartbeat, or pulse palpitations); angioedema; bradycardia (slow or irregular heartbeats; lightheadedness) [Telmisartan]; dehydration [Hydrochlorothiazide]; hypochloremia (increased thirst; loss of appetite) [Hydrochlorothiazide]; hyponatremia (coma; confusion; convulsions; decreased urine output; dizziness; fast or irregular heartbeat; headache; increased thirst; muscle pain or cramps; nausea or vomiting; shortness of breath; swelling of face, ankles, or hands; unusual tiredness or weakness) [Hydrochlorothiazide].

DIAGNOSTIC TESTS: hypokalemia; hypochloremia [Hydrochlorothiazide]; hyponatremia [Hydrochlorothiazide].

Temozolomide (Systemic)

Commercial name(s): *Temodal; Temodar*.

Category: Antineoplastic.

Conventional indications: Anaplastic astrocytoma of brain, refractory (treatment); Glioblastoma multiforme of brain, newly diagnosed (treatment); Melanoma, metastatic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: amnesia; anxiety; confusion; depression, mental.

VERTIGO: dizziness.

HEAD: headache.

VISION: blurred vision; double vision.

NOSE: sinusitis (runny or stuffy nose).

THROAT: dysphasia (difficulty in speaking); pharyngitis (sore throat).

STOMACH: *nausea; vomiting; anorexia* (loss of appetite).

ABDOMEN: *pain, abdominal.*

RECTUM: *constipation; diarrhea.*

BLADDER: *incontinence, urinary; urinate, increased urge to.*

RESPIRATION: *pneumonia, Pneumocystis carinii (PCP)* (chest pain, cough, fever or chills, sneezing, shortness of breath, sore throat, troubled breathing, tightness in chest, wheezing).

COUGH: *cough.*

CHEST: *pain, breast* (in females); *pneumonia, Pneumocystis carinii (PCP)* (chest pain, cough, fever or chills, sneezing, shortness of breath, sore throat, troubled breathing, tightness in chest, wheezing).

BACK: *pain, back.*

EXTREMITIES: *coordination, muscle, loss of; edema, peripheral* (swelling of feet or lower legs); *pain, muscle; paresis or hemiparesis* (muscle weakness or paralysis on one or both sides of the body).

SLEEP: *drowsiness; insomnia* (trouble in sleeping).

FEVER: *fever.*

SKIN: *itching; rash; erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers or white spots in mouth or on lips; unusual tiredness or weakness).

GENERALITIES: *tiredness or weakness, unusual; coordination, muscle, loss of; infection; leukopenia* (cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination); *neutropenia* (cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination); *pain, muscle; paresis or hemiparesis* (muscle weakness or paralysis on one or both sides of the body); *paresthesia* (burning or prickling sensation on the skin); *seizures; sinusitis* (runny or stuffy nose); *thrombocytopenia* (black, tarry stools; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *weight gain, unusual; anaphylaxis* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers or white spots in mouth or on lips; unusual tiredness or weakness); *infections, opportunistic; malignancies, secondary* (including myeloid leukemia); *myelodysplastic syndrome.*

DIAGNOSTIC TESTS: *leukopenia; neutropenia; thrombocytopenia.*

Tenecteplase (Systemic)

Commercial name(s): *TNKase.*

Category: Thrombolytic.

Conventional indications: Thrombosis, coronary arterial, acute (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *hemorrhage, intracranial.*

EYE: *angioedema* (large, hive-like swelling on eyelids).

NOSE: *epistaxis* (bloody nose; unexplained nosebleeds).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *bleeding, pharyngeal* (blood in throat; cough up blood); *angioedema* (large, hive-like swelling on throat).

STOMACH: *bleeding, gastrointestinal tract* (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe stomach pain; constipation).

ABDOMEN: *bleeding, gastrointestinal tract* (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe stomach pain; constipation); *bleeding, retroperitoneal* (abdominal pain or swelling; back pain or backaches).

RECTUM: *bleeding, gastrointestinal tract* (bloody or black, tarry stools; vomiting of blood or material that looks like coffee grounds; severe stomach pain; constipation).

BLADDER: *bleeding, urinary tract* (blood in urine).

KIDNEYS: *bleeding, urinary tract* (blood in urine).

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

LARYNX AND TRACHEA: *bleeding, respiratory tract* (coughing up blood); *edema, laryngeal* (coughing; difficulty in breathing; difficulty in swallowing; hoarseness; shortness of breath; slow or irregular breathing; tightness in chest; wheezing).

CHEST: *arrhythmias, cardiac* (sinus bradycardia, accelerated idioventricular rhythm, ventricular premature depolarizations, and ventricular tachycardia); *bleeding, respiratory tract* (coughing up blood).

EXTREMITIES: *angioedema* (large, hive-like swelling on hands, legs, feet).

SKIN: *rash; urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *bleeding* (internally (intracranial, retroperitoneal, gastrointestinal, genitourinary, or respiratory) and superficially (venous cutdowns, arterial punctures, sites of recent surgical intervention)); *hematoma* (collection of blood under skin; deep, dark purple bruise; itching, pain, redness, or swelling at place of injection); *allergic reaction; anaphylaxis* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *angioedema* (large, hive-like swelling); *arrhythmias, cardiac* (sinus bradycardia, accelerated idioventricular rhythm, ventricular premature depolarizations, and ventricular tachycardia); *bleeding, puncture site* (including cardiac catheterization site); *embolization, cholesterol*.

Teniposide (Systemic)

Commercial name(s): *Vumon*.

Category: Antineoplastic.

Conventional indications: Leukemia, acute lymphocytic (treatment); Lymphoma, non-Hodgkin's (treatment); Neuroblastoma (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: alopecia (loss of hair).

MOUTH: mucositis (sores in mouth and on lips).

STOMACH: nausea; vomiting.

ABDOMEN: impairment, hepatic function (yellow eyes or skin).

RECTUM: diarrhea.

KIDNEYS: impairment, renal function (decreased urination; swelling of face, fingers, feet, or lower legs).

SKIN: alopecia (loss of hair); *rash*.

GENERALITIES: anemia (unusual tiredness); **alopecia** (loss of hair); **hypersensitivity reaction** (chills; fever; flushing of the face; hives; hypertension or hypotension; rapid heartbeat; shortness of breath, troubled breathing, tightness in chest, or wheezing; anaphylaxis-like symptoms); **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **neutropenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *hypotension; neurotoxicity*; bone marrow suppression (fever; chills; cough or hoarseness; lower back or side pain; painful or difficult urination; unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin).

DIAGNOSTIC TESTS: anemia; leukopenia; neutropenia; thrombocytopenia; bone marrow suppression.

Tenofovir (Systemic)

Commercial name(s): *Viread*.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus (HIV) infection (treatment); Hepatitis B virus (HBV) infection, chronic, in patients co-infected with HIV (treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: nausea; vomiting; anorexia (loss of appetite; weight loss).

ABDOMEN: flatulence (passing of gas); *pain, abdominal; hepatomegaly with steatosis; hepatotoxicity, including lactic acidosis, possibly fatal* (abdominal discomfort; decreased appetite; diarrhea; fast, shallow breathing; general feeling of discomfort; muscle pain or cramping; nausea; shortness of breath; sleepiness; unusual tiredness or weakness); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: diarrhea.

KIDNEYS: failure, renal (lower back or side pain; decreased frequency or amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure; agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; seizures; stupor; swelling of ankles, or hands; unusual tiredness or weakness); *insufficiency, renal* (lower

back or side pain; decreased frequency or amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure); *necrosis, tubular, acute* (bloody or cloudy urine; difficult or painful urination; sudden decrease in amount of urine); *tubulopathy, proximal*.

RESPIRATION: *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing)

EXTREMITIES: *bone abnormalities* (long-term use)

GENERALITIES: *asthenia* (lack or loss of strength); *acidosis, lactic*; *allergic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *body fat, accumulation and redistribution of* (breast enlargement, central obesity, cushingoid appearance, dorsocervical fat enlargement (buffalo hump), facial wasting, peripheral wasting); *bone abnormalities* (long-term use); *fanconi syndrome*; *hepatotoxicity, including lactic acidosis, possibly fatal* (abdominal discomfort; decreased appetite; diarrhea; fast, shallow breathing; general feeling of discomfort; muscle pain or cramping; nausea; shortness of breath; sleepiness; unusual tiredness or weakness); *hypophosphatemia* (bone pain; convulsions; loss of appetite; trouble breathing; unusual tiredness or weakness); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

DIAGNOSTIC TESTS: *acidosis, lactic*; *steatosis*; *hypophosphatemia*; *transaminase elevations*.

Terazosin (Systemic)

Commercial name(s): *Hytrin*.

Category: Antihypertensive; Benign prostatic hyperplasia therapy agent.

Conventional indications: Hypertension (treatment); Benign prostatic hyperplasia (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*; *hypotension, orthostatic* (dizziness or lightheadedness, when getting up from a lying or sitting position; sudden fainting); *syncope*.

HEAD: *headache*.

VISION: *blurred vision*.

NOSE: *congestion* (stuffy nose).

STOMACH: *nausea*; *vomiting*.

RESPIRATION: *dyspnea* (shortness of breath).

CHEST: *angina* (chest pain); *palpitations* (pounding heartbeat); *tachycardia* (fast or irregular heartbeat).

BACK: *pain, back*.

EXTREMITIES: edema, peripheral (swelling of feet or lower legs; weight gain); pain, joint.

SLEEP: somnolence (drowsiness).

GENERALITIES: hypotension; **asthenia** (unusual tiredness or weakness); edema, peripheral (swelling of feet or lower legs; weight gain); hypotension, orthostatic (dizziness or lightheadedness, when getting up from a lying or sitting position; sudden fainting); pain, joint; palpitations (pounding heartbeat); tachycardia (fast or irregular heartbeat).

Terbinafine (Systemic)

Commercial name(s): *Lamisil*.

Category: Antifungal (systemic).

Conventional indications: Onychomycosis (treatment); Tinea capitis (treatment); Tinea cruris (treatment); Tinea pedis (treatment).

Primary Actions or Pathogenetic Symptoms

MOUTH: taste, change or loss of; discoloration, tongue.

STOMACH: **disturbances, gastrointestinal** (diarrhea; loss of appetite; nausea and vomiting; stomach pain, mild).

ABDOMEN: **disturbances, gastrointestinal** (diarrhea; loss of appetite; nausea and vomiting; stomach pain, mild); failure, hepatic (dark urine; fatigue; loss of appetite; pale stools; yellow eyes or skin).

SKIN: hypersensitivity (skin rash or itching); necrosis, toxic epidermal (difficulty in swallowing; redness, blistering, peeling, or loosening of skin); psoriasis, psoriasiform eruption [1].

GENERALITIES: hepatitis (dark urine; fatigue; loss of appetite; pale stools; yellow eyes or skin); neutropenia (fever, chills, or sore throat); pancytopenia (fever, chills, or sore throat; pale skin; unusual bleeding or bruising; unusual tiredness or weakness); *Stevens-Johnson syndrome* (aching joints and muscles; redness, blistering, peeling, or loosening of skin; unusual tiredness or weakness).

DIAGNOSTIC TESTS: neutropenia; pancytopenia.

Complementary Bibliography: [1] Kim GK, Del Rosso JQ. Drug-provoked psoriasis: is it drug induced or drug aggravated? Understanding pathophysiology and clinical relevance. *J Clin Aesthet Dermatol* 2010; **3**(1): 32-38.

Terbinafine (Topical)

Commercial name(s): *Lamisil*.

Category: Antifungal (topical).

Conventional indications: Tinea corporis (treatment); Tinea cruris (treatment); Tinea pedis, interdigital (treatment); Tinea pedis, plantar (treatment); Tinea versicolor (treatment); Candidiasis, cutaneous (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *burning, dryness, itching, peeling, rash, redness, stinging, tingling, or other signs of skin irritation that were not present before.*

Teriparatide (Systemic)

Commercial name(s): *Forteo.*

Category: Diagnostic aid (hypoparathyroidism vs. pseudohypoparathyroidism); Osteoporosis therapy.

Conventional indications: Hypoparathyroidism, idiopathic (diagnosis) or Pseudohypoparathyroidism (diagnosis) [Intravenous teriparatide acetate]; Osteoporosis, male (treatment) [Subcutaneous teriparatide (rDNA origin)]; Osteoporosis, postmenopausal (treatment) [Subcutaneous teriparatide (rDNA origin)].

Primary Actions or Pathogenetic Symptoms

MIND: depression (discouragement, feeling sad or empty, irritability, lack of appetite, loss of interest or pleasure, tiredness, trouble concentrating, trouble sleeping).

VERTIGO: **dizziness;** syncope (fainting); *vertigo* (dizziness or lightheadedness; feeling of constant movement of self or surroundings, sensation of spinning).

HEAD: **headache.**

NOSE: **rhinitis** (stuffy nose, runny nose, sneezing).

FACE: *edema, oro/facial* (swelling or puffiness of mouth and face).

MOUTH: *edema, oro/facial* (swelling or puffiness of mouth and face).

TEETH: tooth disorder.

THROAT: **pharyngitis** (body aches or pain, congestion, cough, dryness or soreness of throat, fever, hoarseness, runny nose, tender swollen glands in neck, trouble in swallowing, voice changes).

EXTERNAL THROAT: pain, neck.

STOMACH: **dyspepsia** (acid or sour stomach, belching, heartburn, indigestion, stomach discomfort, upset or pain); **nausea;** disorder, gastrointestinal (abdominal or stomach cramps; discomfort; pain; back pain; constipation; diarrhea; indigestion; loss of appetite; nausea or vomiting; swollen mouth and tongue; unpleasant taste; urge to have bowel movement; vomiting); *vomiting.*

ABDOMEN: disorder, gastrointestinal (abdominal or stomach cramps; discomfort; pain; back pain; constipation; diarrhea; indigestion; loss of appetite; nausea or vomiting; swollen mouth and tongue; unpleasant taste; urge to have bowel movement; vomiting).

RECTUM: **constipation** (difficulty having a bowel movement (stool)); **diarrhea**

RESPIRATION: dyspnea (shortness of breath, difficult or labored breathing, tightness in chest, wheezing); pneumonia (chest pain, cough, fever, or chills, sneezing, shortness of breath, sore throat, troubled breathing, tightness in chest, wheezing).

COUGH: **cough increased.**

CHEST: angina pectoris (arm, back or jaw pain, chest pain or discomfort, chest tightness or heaviness, fast or irregular heartbeat, shortness of breath, sweating, nausea); pneumonia (chest pain, cough, fever, or chills, sneezing, shortness of breath, sore throat, troubled breathing, tightness in chest, wheezing); *pain, chest.*

EXTREMITIES: **arthralgia** (pain in joints, muscle pain or stiffness, difficulty in moving); *cramps, leg*.

SLEEP: *insomnia* (sleeplessness, trouble sleeping, unable to sleep).

PERSPIRATION: *sweating*.

SKIN: *rash*; *erythema* (flushing; redness of skin; unusually warm skin); *pruritus* (itching skin); *urticaria, generalized* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: **arthralgia** (pain in joints, muscle pain or stiffness, difficulty in moving); **asthenia** (lack or loss of strength); **hypercalcemia** (abdominal pain, confusion, constipation, depression, dry mouth, headache, incoherent speech, increased urination, loss of appetite, metallic taste, muscle weakness, nausea, thirst, unusual tiredness, vomiting, weight loss); **hypertension** (blurred vision, dizziness, nervousness, headache, pounding in the ears, slow or fast heartbeat); **pain**; *bleeding at injection site, minor; bruising, localized; pain*.

DIAGNOSTIC TESTS: hypercalcemia.

Testolactone (Systemic)

Commercial name(s): *Teslac*.

Category: Antineoplastic.

Conventional indications: Breast cancer, advanced or disseminated, in postmenopausal women (palliative treatment).

Primary Actions or Pathogenetic Symptoms

FACE: *neuropathies, peripheral* (numbness or tingling of fingers, toes, or face).

MOUTH: *redness of tongue; swelling of tongue*.

STOMACH: *appetite, loss of; nausea; vomiting*.

RECTUM: *diarrhea*.

EXTREMITIES: *neuropathies, peripheral* (numbness or tingling of fingers, toes, or face); *pain in feet or lower legs; swelling in feet or lower legs*.

Testosterone (Systemic)

Commercial name(s): *Striant*.

Category: Androgen.

Conventional indications: Androgen deficiency, due to primary or secondary hypogonadism (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *manish* (habits and characteristics masculine); *anxiety* (fear; nervousness); *depression* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); *emotional lability* (crying; depersonalization; dysphoria; euphoria; mental depression; paranoia; quick to react or overreact emotionally; rapidly changing moods).

HEAD: *headache*; accident, cerebrovascular (blurred vision; headache; sudden and severe inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe) [Testosterone enanthate].

NOSE: *edema* (swelling of the nose).

FACE: *stinging of lips*.

MOUTH: *irritation, gum or mouth; blister, gum; dryness; edema, gum* (swelling of gums); *gingivitis* (bleeding gums; irritation in mouth; redness and swelling of gums; mouth ulcers); *inflammation, buccal; pain, gum; stomatitis* (swelling or inflammation of the mouth); *taste, bitter; taste perversion* (change in taste; bad unusual or unpleasant (after)taste); *tenderness, gum*.

TEETH: *toothache*.

STOMACH: *cramp, abdominal* (stomach cramps); *disorder, gastrointestinal* (diarrhea; loss of appetite; nausea or vomiting; stomach pain, fullness, or discomfort; indigestion; passing of gas); *nausea*.

ABDOMEN: *cramp, abdominal* (stomach cramps); *disorder, gastrointestinal* (diarrhea; loss of appetite; nausea or vomiting; stomach pain, fullness, or discomfort; indigestion; passing of gas).

BLADDER: *micturition disturbances* (trouble in holding or releasing urine; painful urination).

KIDNEYS: *function, renal, abnormal*.

RESPIRATION: *asthma* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing).

CHEST: *asthma* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *enlargement, breast; pain, breast*.

EXTREMITIES: pain, bone, transient increase in.

SKIN: *acne* (blemishes on the skin, pimples); *pruritus* (itching skin).

GENERALITIES: *mannish* (habits and characteristics masculine); *fatigue* (unusual tiredness or weakness); *hypertension* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); *infection* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination).

DIAGNOSTIC TESTS: *liver function test abnormal*.

Tetanus Immune Globulin (Systemic)

Commercial name(s): *BayTet*.

Category: Immunizing agent (passive).

Conventional indications: *Clostridium tetani* infection (prophylaxis).

Primary Actions or Pathogenetic Symptoms

KIDNEYS: *nephrotic syndrome*.

FEVER: *temperature elevation, slight*.

GENERALITIES: *anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of soles or palms; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *edema*,

angioneuropathic; nephrotic syndrome; sensitization to repeated injections (soreness at the site of injection, slight; temperature elevation, slight); shock, anaphylactic; soreness at the site of injection.

Tetanus Toxoid (Systemic)

Commercial name(s): *Tetanus Toxoid, Tetanus Toxoid Adsorbed.*

Category: Immunizing agent (active).

Conventional indications: Tetanus (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *irritability.*

EXTREMITIES: *neuropathies, peripheral.*

CHILL: *chills.*

FEVER: *fever; fever over 39.4° C (103° F).*

SKIN: *rash.*

GENERALITIES: *hard lump at injection site; redness at injection site; abscess, sterile at injection site; allergic reaction, delayed-type, cell-mediated (pain, tenderness, itching, or swelling at injection site); nodule at injection site; tiredness, unusual; anaphylactic reaction (difficulty in breathing or swallowing; hives; itching, especially of soles or palms; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; sudden and severe unusual tiredness or weakness); blistering at injection site, which may be severe and extensive; hypersensitivity reaction, arthus-type; lymphadenopathy (swelling of glands in armpit); neurologic reaction (confusion; fever over 39.4° C [103° F]; severe or continuing headache; seizures; excessive sleepiness; unusual irritability; severe or continuing vomiting; peripheral neuropathies); pain at injection site, which may be severe and extensive; swelling at injection site, which may be severe and extensive.*

Tetracycline Periodontal Fibers (Mucosal-Local)

Commercial name(s): *Actisite.*

Category: Antibacterial (dental).

Conventional indications: Periodontitis (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MOUTH: *discomfort on fiber placement; erythema, local, following removal; candidiasis, oral (white patches on tongue or in mouth); glossitis (tongue pain and redness); inflammation and pain, gingival (redness and swelling of gums); staining of tongue.*

THROAT: *soreness.*

Tetracyclines (Ophthalmic)

Commercial name(s): *Achromycin; Aureomycin.*

Category: Antibacterial (ophthalmic).

Conventional indications: Ocular infections (treatment) [Ophthalmic chlortetracycline; Ophthalmic tetracycline]; Ophthalmia neonatorum (prophylaxis) [Ophthalmic chlortetracycline and tetracycline]; Trachoma (treatment) [Ophthalmic chlortetracycline and tetracycline]; Blepharitis, bacterial (treatment), Blepharoconjunctivitis (treatment), Conjunctivitis, bacterial (treatment), Keratitis, bacterial (treatment), Keratoconjunctivitis, bacterial (treatment), or Meibomianitis (treatment) [Ophthalmic chlortetracycline and tetracycline]; Chlamydial infections (treatment) or Rosacea, ocular (treatment).

Primary Actions or Pathogenetic Symptoms

No side effects reported.

Tetracyclines (Systemic)

Commercial name(s): *Achromycin V; Alti-Doxycycline; Alti-Minocycline; Apo-Doxy; Apo-Doxy-Tabs; Apo-Minocycline; Apo-Tetra; Declomycin; Doryx; Doxycin; Doxytec; Dynacin; Gen-Minocycline; Minocin; Monodox; Novo-Doxilin; Novo-Minocycline; Novo-Tetra; Nu-Doxycycline; Nu-Tetra; Terramycin; Vibra-Tabs; Vibra-Tabs C-Pak; Vibramycin.*

Category: Antibacterial; antiprotozoal [Demeclocycline; Doxycycline; Minocycline; Oxytetracycline; Tetracycline]; Antiacne agent [Doxycycline; Minocycline (oral); Tetracycline]; Antimalarial [Doxycycline; Tetracycline]; Intrapleural sclerosing agent [Doxycycline; Tetracycline]; Antirheumatic [Minocycline (oral)]; Diuretic (syndrome of inappropriate antidiuretic hormone) [Demeclocycline].

Conventional indications: Acne vulgaris (treatment adjunct) [Doxycycline, minocycline, and tetracycline]; Actinomycosis (treatment); Amebiasis, intestinal (treatment adjunct); Anthrax (treatment); Bartonellosis (treatment); Brucellosis (treatment); Chancroid (treatment); Cholera (treatment) [Oral doxycycline, oral minocycline, and tetracycline]; Conjunctivitis, inclusion (treatment) [Oral tetracyclines]; Genitourinary tract infections (treatment); Gingivostomatitis, necrotizing ulcerative (treatment); Gonorrhea (treatment); Granuloma inguinale (treatment); Listeriosis (treatment); Lymphogranuloma venereum (treatment); Malaria (prophylaxis) [Systemic doxycycline]; Meningococcal carriers (treatment) [Oral minocycline]; Mycobacterial infections, atypical (treatment) [Oral minocycline]; Plague (treatment); Pneumonia, mycoplasmal (treatment); Psittacosis (treatment); Q fever (treatment); Rickettsial pox (treatment); Rocky Mountain spotted fever (treatment); Typhus infections (treatment); Relapsing fever (treatment); Respiratory tract infections (treatment); Skin and soft tissue infections (treatment); Syphilis (treatment) [Oral tetracyclines]; Trachoma (treatment); Tularemia (treatment); Urinary tract infections, bacterial (treatment); Yaws (treatment); Amebiasis, extraintestinal (treatment) [concurrently or sequentially with metronidazole]; Arthritis, gonococcal (treatment); Arthritis, rheumatoid (treatment) [Oral minocycline]; Chlamydial infections (treatment); Enterocolitis, *Shigella* species (prophylaxis and treatment) [Doxycycline]; Gallbladder infections (treatment) [Minocycline]; Leprosy (treatment) [Minocycline, in combination with other anti-infective agents]; Lyme disease (treatment) [Doxycycline and tetracycline];

Malaria (treatment) [Oral doxycycline and tetracycline, in combination with antimalarial agents]; Malignant effusions, pleural (treatment) [Doxycycline]; Nocardiosis (treatment) [Doxycycline and minocycline]; Pneumothorax (prophylaxis); Rosacea, ocular (treatment) [Oral doxycycline and tetracycline]; Syndrome of inappropriate antidiuretic hormone (SIADH) (treatment) [Demeclocycline]; Travelers' diarrhea (treatment) [Doxycycline].

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness; lightheadedness.

HEAD: *hypertension, intracranial, benign* (anorexia; bulging fontanel in infants; headache; papilledema; visual changes; vomiting).

MOUTH: *hypertrophy of the papilla* (darkened or discolored tongue).

TEETH: staining of infants' or children's teeth.

STOMACH: disturbances, gastrointestinal (cramps or burning of the stomach; diarrhea; nausea or vomiting).

ABDOMEN: disturbances, gastrointestinal (cramps or burning of the stomach; diarrhea; nausea or vomiting); *hepatotoxicity* (abdominal pain; nausea and vomiting; yellowing skin; fatty degeneration of the liver); *pancreatitis* (abdominal pain; nausea and vomiting).

BLADDER: *frequent urination* [Demeclocycline].

KIDNEYS: *diabetes insipidus, nephrogenic* (greatly increased frequency of urination or amount of urine; increased thirst; unusual tiredness or weakness) [Demeclocycline].

URINE: *copious (increased) urine* [Demeclocycline].

EXTREMITIES: unsteadiness.

SKIN: photosensitivity (increased sensitivity of skin to sunlight); *pigmentation of skin and mucous membranes*.

GENERALITIES: toxicity, CNS (dizziness; lightheadedness; unsteadiness); *diabetes insipidus, nephrogenic* (greatly increased frequency of urination or amount of urine; increased thirst; unusual tiredness or weakness) [Demeclocycline]; *fungal overgrowth* (itching of the rectal or genital areas; sore mouth or tongue); *pigmentation of skin and mucous membranes*.

Tetracyclines (Topical)

Commercial name(s): *Achromycin; Aureomycin; Meclan; Topicycline*.

Category: Antiacne agent (topical) [Meclocycline; Tetracycline Hydrochloride for Topical Solution]; Antibacterial (topical) [Chlortetracycline; Tetracycline Hydrochloride Ointment].

Conventional indications: Acne vulgaris (treatment) [Meclocycline sulfosalicylate cream and tetracycline hydrochloride for topical solution]; Skin infections, bacterial, minor (treatment) [Chlortetracycline hydrochloride ointment and tetracycline hydrochloride ointment]; Skin infections, bacterial, minor (prophylaxis) or [Ulcer, dermal (treatment) [Topical chlortetracycline and tetracycline hydrochloride ointment].

Primary Actions or Pathogenetic Symptoms

SKIN: **burning feeling** [Topical solution]; **dryness** [Topical solution]; **scaly skin** [Topical solution]; **stinging feeling** [Topical solution]; pain, redness, swelling, or other sign of irritation not present before therapy; yellowing of the skin, faint, especially around hair roots [Cream and topical solution].

Thalidomide (Systemic)

Commercial name(s): THALOMID.

Category: Immunomodulator; Anti-inflammatory; Antiangiogenesis agent.

Conventional indications: Erythema nodosum leprosum (ENL) (treatment); Erythema nodosum leprosum (ENL), recurrent (suppression); Behcet's syndrome (treatment); Human immunodeficiency virus (HIV)-associated wasting syndrome (treatment); Stomatitis, aphthous (treatment); Stomatitis, aphthous, immunodeficiency-associated (treatment); Multiple myeloma (treatment); Ulcer, esophageal, aphthous, human immunodeficiency virus (HIV)-associated (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *mood alterations.*

VERTIGO: *dizziness.*

HEAD: *headache.*

MOUTH: *dryness.*

STOMACH: *intolerance, gastrointestinal* (constipation; diarrhea; nausea; stomach pain); *appetite, increased.*

ABDOMEN: *intolerance, gastrointestinal* (constipation; diarrhea; nausea; stomach pain).

KIDNEYS: *failure, renal* (blood in urine; decreased urination).

GENITALIA FEMININE: *birth defects* (the window of embryopathy is small [thought to be from day 21 to day 56 after conception]; amelia and phocomelia; polydactyly; syndactyly; facial capillary hemangiomas; hydrocephalus; intestinal, cardiovascular, and renal anomalies; and eye, ear, and cranial nerve defects; facial and oculomotor paresthesias; other ocular defects; anal stenoses; vaginal and uterine defects; and heart malformations, which are generally fatal).

CHEST: *heartbeat, irregular.*

EXTREMITIES: **neuropathy, peripheral** (tingling, burning, numbness, or pain in the hands, arms, feet, or legs; muscle weakness; axonal degeneration without demyelination, affecting mainly sensory fibers in the lower limbs); *swelling in the legs.*

SLEEP: *drowsiness.*

FEVER: *fever.*

SKIN: *dryness; necrolysis, toxic epidermal, possibly fatal* (blistering of skin; red irritated eyes; chills; red lesions with a purple center; unusual tiredness); *rash.*

GENERALITIES: **antiangiogenesis; neuropathy, peripheral** (tingling, burning, numbness, or pain in the hands, arms, feet, or legs; muscle weakness; axonal degeneration without demyelination, affecting mainly sensory fibers in the lower limbs); *blood pressure, low; heartbeat, irregular; neutropenia* (fever, chills, or sore throat); *seizures, including grand mal convulsions* (muscle jerking of extremities; loss of consciousness; vision

changes; atypical headache); *Stevens-Johnson syndrome* (peeling or loosening of skin; itching; red skin lesions, often with a purple center; sores, ulcers, or white spots in mouth or on lips).

DIAGNOSTIC TESTS: *electrophysiological abnormalities* (decreased sensory nerve action potential (SNAP) amplitude; decreased sensory and motor conduction velocities and alterations in latencies); *neutropenia*.

Thallous Chloride Tl 201 (Systemic)

Category: Diagnostic aid, radioactive (myocardial infarction; ischemic heart disease; parathyroid disorders; neoplastic disease).

Conventional indications: Cardiac imaging, radionuclide; Myocardial infarction (diagnosis); Myocardial perfusion imaging, radionuclide; Coronary artery disease (diagnosis); Parathyroid imaging, radionuclide; Tumor imaging, radionuclide.

Primary Actions or Pathogenetic Symptoms

VISION: *blurred vision*.

STOMACH: *nausea*.

PERSPIRATION: *sweating*.

SKIN: *allergic reaction* (skin rash, hives, or itching).

GENERALITIES: *hypotension*.

Theophylline and Guaifenesin (Systemic)

Commercial name(s): *Bronchial; Broncomar GG; Ed-Bron G; Elixophyllin-GG; Equibron G; Glyceryl-T; Quibron; Quibron-300; Slo-Phyllin GG; Theocon; Theolate*.

Category: Bronchodilator.

Conventional indications: Asthma (prophylaxis and treatment); Bronchitis, chronic (treatment); Emphysema, pulmonary (treatment); Pulmonary disease, chronic obstructive, other (treatment).

Primary Actions or Pathogenetic Symptoms

CHEST: *bronchodilator*.

Theophylline - See Bronchodilators, Theophylline (Systemic).

Guaifenesin - See Guaifenesin (Systemic).

Theophylline, Ephedrine, and Phenobarbital (Systemic)

Commercial name(s): *Tedral*.

Category: Bronchodilator.

Conventional indications: Bronchial asthma, Asthmatic bronchitis, and other lung diseases symptoms (treatment).

Primary Actions or Pathogenetic Symptoms

CHEST: *bronchodilator*.

Theophylline - See Bronchodilators, Theophylline (Systemic).

Ephedrine - See Bronchodilators, Adrenergic (Systemic).

Phenobarbital - See Barbiturates (Systemic).

Thiabendazole (Systemic)

Commercial name(s): *Mintezol*.

Category: Anthelmintic (systemic).

Conventional indications: Larva migrans, cutaneous (treatment); Larva migrans, visceral (treatment); Strongyloidiasis (treatment); Trichinosis (treatment); Uncinariasis (treatment); Capillariasis (treatment); Dracunculiasis (treatment); Trichostrongyliasis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: toxicity, neuropsychiatric (delirium; disorientation; hallucinations; irritability).

VERTIGO: dizziness.

HEAD: headache; toxicity, central nervous system (CNS) (numbness or tingling in the hands or feet; dizziness; drowsiness; headache; tinnitus).

EYE: drying of mucous membranes, especially eyes and mouth; *feeling, unusual, in the eyes*.

VISION: *blurred vision; yellow vision*.

HEARING: tinnitus.

MOUTH: drying of mucous membranes, especially eyes and mouth.

STOMACH: disturbance, gastrointestinal, severe (anorexia; diarrhea; nausea and vomiting).

ABDOMEN: disturbance, gastrointestinal, severe (anorexia; diarrhea; nausea and vomiting); *cholestasis, intrahepatic* (malaise; nausea and vomiting; dark urine; pale stools; yellow eyes and skin).

URINE: *crystalluria* (lower back pain; pain or burning while urinating); *odor, asparagus-like or other unusual*.

EXTREMITIES: numbness in the hands or feet; tingling in the hands or feet.

SLEEP: drowsiness.

SKIN: *hypersensitivity* (skin rash or itching).

GENERALITIES: drying of mucous membranes, especially eyes and mouth; toxicity, central nervous system (CNS) (numbness or tingling in the hands or feet; dizziness; drowsiness; headache; tinnitus); *seizures; Stevens-Johnson syndrome* (aching of joints and muscles; fever and chills; redness, blistering, peeling, or loosening of skin).

DIAGNOSTIC TESTS: *crystalluria*.

Thiabendazole (Topical)

Commercial name(s): *Apl-Luster; Arbotect; Bioguard; Bovizole; Chemviron TK 100; Cropasal; Drawipas; Eprofil; Equivet TZ; Equizole; Hokustar hp; Hymush; Lombristop; Mertec; Mertect; Mertect 160; Mertect 340f; Mertect lsp; Metasol TK 10; Metasol TK 100; Mintesol; Mintezol; Minzolum; Mycozol; Nemacin; Nemapan; Omnizole; Ormogal; Polival; RPH; Sanaizol 100; Sistesan; Storite; TBZ 6; TBZ 60W; Tebuzate; Tecto; Tecto 10P; Tecto 40F; Tecto 60; Tecto B; Tecto rph; Testo; Thiaben; Thibendole; Thibenzol; Thibenzole; Thibenzole 200; Thibenzole att; Thiprazole; Tiabenda; Tibimix 20; Tobaz; Top form wormer; Triasox; Tubazole.*

Category: Anthelmintic (topical).

Conventional indications: Larva migrans, cutaneous (treatment).

Primary Actions or Pathogenetic Symptoms

No side effects reported.

Thiamine (Systemic)

Commercial name(s): *Betaxin; Bewon; Biamine.*

Category: Nutritional supplement (vitamin).

Conventional indications: Thiamine deficiency (prophylaxis and treatment); Encephalomyelopathy, subacute necrotizing (treatment); Maple syrup urine disease (treatment); Pyruvate carboxylase deficiency (treatment); Hyperalaninemia (treatment).

Primary Actions or Pathogenetic Symptoms

GENERALITIES: *anaphylactic reaction* (coughing; difficulty in swallowing; hives; itching of skin; swelling of face, lips, or eyelids; wheezing or difficulty in breathing).

Thiethylperazine (Systemic)

Commercial name(s): *Torecan.*

Category: Antiemetic.

Conventional indications: Nausea and vomiting (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; difficulty in speaking*; coma (loss of consciousness)

VERTIGO: *dizziness; balance control, loss of; hypotension, orthostatic* (dizziness or lightheadedness, especially when getting up from a lying or sitting position)

HEAD: *headache.*

EYE: *inability to move eyes; retinopathy, pigmentary* (blurred vision; defective color vision; difficulty seeing at night); oculogyric crisis (inability to move eyes).

HEARING: *tinnitus* (ringing or buzzing in ears).

NOSE: *dryness*; stuffy nose.

FACE: *edema, peripheral* (swelling of face); *mask-like face; spasms, muscle, of face.*

MOUTH: *difficulty in speaking; dryness.*

THROAT: *difficulty in swallowing; dryness.*

EXTERNAL THROAT: spasms, muscle, of neck; hyperextension of the neck.

ABDOMEN: hyperextension of the trunk.

RECTUM: constipation.

RESPIRATION: depression, respiratory (troubled breathing).

CHEST: tachycardia (fast heartbeat); hyperextension of the trunk.

BACK: spasms, muscle, of back; hyperextension of the trunk.

EXTREMITIES: edema, peripheral (swelling of arms, hands); movements of body, twisting; movements, tic-like or twitching; shuffling walk; stiffness of arms or legs; trembling and shaking of hands and fingers; weakness of arms and legs.

SLEEP: drowsiness.

FEVER: fever.

SKIN: rash.

GENERALITIES: agranulocytosis (chills; fever; sore throat; unusual tiredness or weakness); anticholinergic effects (constipation; dizziness; drowsiness; dryness of mouth, nose, and throat); convulsions; extrapyramidal effects, dystonic (muscle spasms of face, neck, and back; tic-like or twitching movements; twisting movements of body; inability to move eyes; weakness of arms and legs); extrapyramidal effects, parkinsonian (difficulty in speaking or swallowing; loss of balance control; mask-like face; shuffling walk; stiffness of arms or legs; trembling and shaking of hands and fingers); hypotension (fainting; lightheadedness); hypotension, orthostatic (dizziness or lightheadedness, especially when getting up from a lying or sitting position); jaundice, cholestatic (abdominal or stomach pains; aching muscles and joints; fever and chills; severe skin itching; yellow eyes or skin; fatigue; nausea, vomiting, or diarrhea); leukopenia (chills; fever; sore throat); movements of body, twisting; movements, tic-like or twitching; pancytopenia (nosebleeds; unusual bleeding or bruising); shuffling walk; tachycardia (fast heartbeat); tardive dyskinesia (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs); thrombocytopenia (unusual bleeding or bruising); coma (loss of consciousness); seizures (convulsions).

DIAGNOSTIC TESTS: agranulocytosis; leukopenia; pancytopenia; thrombocytopenia.

Secondary Actions or Rebound Effects: paradoxical reaction (continuing nightmares; unusual excitement, nervousness, restlessness, or irritability).

Thioguanine (Systemic)

Commercial name(s): *Lanvis; Tabloid*.

Category: Antineoplastic.

Conventional indications: Leukemia, acute nonlymphocytic (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: clumsiness when walking; unsteadiness when walking.

MOUTH: stomatitis, dose-related (sores in mouth and on lips).

STOMACH: *anorexia* (loss of appetite; weight loss); *appetite, loss of*; *nausea*; *vomiting*; *ulceration, gastrointestinal* (black, tarry stools).

ABDOMEN: *fibrosis, hepatic* (yellow eyes or skin); *fibrosis, periportal* (yellow eyes or skin); *hepatotoxicity* (yellow eyes or skin); *hyperplasia, nodular regenerative, liver* (blood in the stool; stomach bloating or pain; vomiting blood); *hypertension, portal* (chest pain or discomfort; coughing up blood; fainting, shortness of breath; tiredness; weakness); *necrosis, hepatic, centrilobular* (abdominal or stomach pain; black, tarry stools; chills; light-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *peliosis hepatis* (dark-colored urine; fever; hives; light-colored stools; loss of appetite; continuing nausea; purple- or red-colored spots on body or inside the mouth or nose; sore throat; vomiting); *toxicity, liver* (abdominal pain; severe dark urine; fatigue; loss of appetite; nausea or vomiting; yellow eyes or skin); *ulceration, gastrointestinal* (black, tarry stools).

RECTUM: *diarrhea*.

KIDNEYS: *nephropathy, uric acid* (joint pain; lower back or side pain; swelling of feet or lower legs).

EXTREMITIES: *clumsiness when walking*; *unsteadiness when walking*.

SKIN: *itching*; *rash*.

GENERALITIES: **immunosuppression** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools); *hyperuricemia* (joint pain; lower back or side pain; swelling of feet or lower legs); *bone marrow depression* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); *hepatic veno-occlusive disease* (bloated abdomen; pain and fullness in right upper abdomen; weight gain; yellow eyes and skin); *hepatitis, toxic* (yellow eyes or skin); *myelosuppression* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands).

DIAGNOSTIC TESTS: **leukopenia**; **thrombocytopenia**; *hyperuricemia*; *myelosuppression*; *pancytopenia*.

Thiotepa (Systemic)

Commercial name(s): *Thioplex*.

Category: Antineoplastic.

Conventional indications: Carcinoma, breast (treatment); Carcinoma, ovarian, epithelial (treatment); Carcinoma, bladder (treatment); Carcinoma, bladder (prophylaxis);

Carcinomatous meningitis (treatment); Lymphomas, Hodgkin's (treatment); Malignant effusions, pericardial (treatment); Malignant effusions, pleural (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: hair, loss of.

MOUTH: *stomatitis* (sores in mouth and on lips).

STOMACH: appetite, loss of; nausea; vomiting.

KIDNEYS: nephropathy, uric acid (joint pain; lower back or side pain; swelling of feet or lower legs); *toxicity, renal, after local vesical application* (painful or difficult urination).

GENITALIA FEMALE: menstrual periods, missing.

SKIN: hair, loss of; hives.

GENERALITIES: **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine; pinpoint red spots on skin); hair, loss of; pain at site of injection or instillation; hyperuricemia (joint pain; lower back or side pain; swelling of feet or lower legs); *anaphylaxis* (skin rash; tightness of throat; wheezing); *bone marrow depression* (black, tarry stools; blood in urine or stools; cough or hoarseness; fever or chills; lower back or side pain; painful or difficult urination; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: **leukopenia**; **thrombocytopenia**; hyperuricemia.

Thioxanthenes (Systemic)

Commercial name(s): *Fluanxol*; *Fluanxol Depot*; *Navane*; *Taractan*; *Thiothixene HCl Intensol*.

Category: Antipsychotic.

Conventional indications: Psychotic disorders (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **akathisia** (severe restlessness or need to keep moving); coma; excitement, unusual.

VERTIGO: **balance control, loss of**; **hypotension**, **orthostatic** (dizziness, lightheadedness, or fainting).

EYE: **inability to move eyes**; deposition of opaque substances in lens and cornea (blurred vision or other eye problems); retinopathy (blurred vision or other eye problems); pupils, small.

NOSE: **congestion** (stuffy nose).

FACE: **mask-like face**.

MOUTH: **difficulty in talking**; **dryness**.

THROAT: **difficulty in swallowing**.

EXTERNAL THROAT: **spasms, muscle, of neck**.

STOMACH: **appetite and weight, increased**.

RECTUM: **constipation**.

BLADDER: *anticholinergic effect* (difficult urination).

GENITALIA MALE: *sexual ability, decreased.*

GENITALIA FEMALE: *menstrual period, changes in; sexual ability, decreased.*

RESPIRATION: difficulty in breathing, severe.

CHEST: *secretion of milk, unusual; swelling of breasts* (in males and females); heartbeat, fast.

BACK: spasms, muscle, of back.

EXTREMITIES: *akathisia* (severe restlessness or need to keep moving); **shuffling walk; spasms, muscle; stiffness of arms and legs;** jerking, muscle; movements, uncontrolled, severe; stiffness, muscle; trembling, muscle.

SLEEP: drowsiness, mild.

FEVER: *heat stroke* (hot, dry skin or lack of sweating; muscle weakness); fever.

PERSPIRATION: sweating, decreased.

SKIN: sensitivity to sunlight, increased; *allergic reaction* (skin rash); *discoloration, skin.*

GENERALITIES: **dystonic reactions** (difficulty in swallowing; inability to move eyes; muscle spasms, especially of neck and back; unusual twisting movements of body); **extrapyramidal effects, parkinsonian** (difficulty in talking; loss of balance control; mask-like face; shuffling walk; stiffness of arms and legs; trembling and shaking of fingers and hands); **hypotension, orthostatic** (dizziness, lightheadedness, or fainting); **shuffling walk; weight, increased; hypotension** (fainting); *agranulocytosis* (sore throat and fever; unusual bleeding or bruising); *blood dyscrasias* (sore throat and fever; unusual bleeding or bruising); *death, sudden; heat stroke* (hot, dry skin or lack of sweating; muscle weakness); *jaundice, obstructive* (yellow eyes or skin); *neuroleptic malignant syndrome (NMS)* (convulsions; difficulty in breathing; fast heartbeat; high fever; high or low blood pressure; increased sweating; loss of bladder control; severe muscle stiffness; unusually pale skin; tiredness; skeletal muscle rigidity, hyperthermia, autonomic dysfunction, altered consciousness, leukocytosis; elevated liver enzymes, elevated creatine phosphokinase [CPK]); coma; convulsions; heartbeat, fast; jerking, muscle; movements, uncontrolled, severe; stiffness, muscle; tiredness or weakness, unusual, severe; trembling, muscle.

DIAGNOSTIC TESTS: *agranulocytosis.*

Secondary Actions or Rebound Effects: **tardive dyskinesia, persistent** (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs); **trembling and shaking of fingers and hands; twisting movements of body, unusual; dyskinesia, withdrawal emergent** (dizziness; nausea and vomiting; stomach pain; trembling of fingers and hands; uncontrolled, repetitive movements of mouth, tongue, or jaw); *tardive dystonia* (increased blinking or spasms of eyelid; unusual facial expressions or body positions; uncontrolled twisting movements of neck, trunk, arms, or legs).

Thrombolytic Agents (Systemic)

Commercial name(s): *Abbokinase; Abbokinase Open-Cath; Activase; Activase rt-PA; Cathflo Activase; Eminase; Streptase.*

Category: Thrombolytic.

Conventional indications: Thrombosis, coronary arterial, acute (treatment) [Alteplase, anistreplase, streptokinase, and urokinase]; Stroke, acute ischemic (treatment) [Alteplase]; Thromboembolism, pulmonary, acute (treatment) [Alteplase, streptokinase, and urokinase]; Thrombosis, deep venous (treatment) [Streptokinase and urokinase]; Thromboembolism, arterial, acute (treatment) and Thrombosis, arterial, acute (treatment) [Streptokinase and urokinase]; Cannula, arteriovenous, clearance [Streptokinase and urokinase]; Catheter, intravenous, clearance [Alteplase and urokinase]; Peripheral arterial occlusive disease (treatment) [Alteplase].

Primary Actions or Pathogenetic Symptoms

HEAD: infarction, cerebral (blurred vision; confusion; numbness or tingling in face, arms, legs; severe headache; trouble speaking or walking) (rebound effect?); stroke, hemorrhagic (confusion; double vision; impairment of speech; weakness in arms or legs).

EYE: occlusion, retinal artery. (rebound effect?)

MOUTH: bleeding or oozing from gums; edema, orolingual (swelling of the tongue and mouth).

STOMACH: nausea; vomiting.

ABDOMEN: infarction, bowel (rebound effect?); pancreatitis (bloating, chills, constipation, darkened urine, fast heartbeat, fever, indigestion, loss of appetite, nausea, pains in stomach, side, or abdomen, possibly radiating to the back, vomiting, yellow eyes or skin).

KIDNEYS: failure, renal, acute (agitation, coma, confusion, decreased urine output, depression, dizziness, headache, hostility, irritability, lethargy, muscle twitching, nausea, rapid weight gain, seizures, stupor, swelling of face, ankles, or hands, unusual tiredness or weakness).

RESPIRATION: bronchospasm (cough, difficulty breathing, noisy breathing, shortness of breath, tightness in chest, wheezing); cyanosis (bluish color of fingernails, lips, skin, palms, or nail beds); dyspnea (shortness of breath, difficult or labored breathing, tightness in chest, wheezing); hypoxia (confusion, dizziness, fast heartbeat, shortness of breath, weakness).

CHEST: bronchospasm (cough, difficulty breathing, noisy breathing, shortness of breath, tightness in chest, wheezing); tachycardia (fast, pounding, or irregular heartbeat or pulse).

BACK: infarction, spinal cord (blurred vision; confusion; numbness or tingling in face, arms, legs; severe headache; trouble speaking or walking) (rebound effect?); pain, back.

EXTREMITIES: digits, gangrenous; "purple toe" syndrome (blue or purple toes, pain in toes); rhabdomyolysis (dark-colored urine, fever, muscle cramps or spasms, muscle pain or stiffness, unusual tiredness or weakness); cyanosis (bluish color of fingernails, lips, skin, palms, or nail beds).

CHILL: chills/rigors (feeling unusually cold, shivering).

FEVER: fever [Anistreplase and Streptokinase; less frequent with Urokinase; rare with other].

SKIN: allergic reaction (flushing or redness of skin; mild headache; mild muscle pain; nausea; skin rash, hives, or itching; troubled breathing or wheezing); bleeding into subcutaneous tissues (bruising); lesions [Streptokinase]; pruritus (itching skin); rash; urticaria (hives or welts, itching, redness of skin, skin rash).

GENERALITIES: *bleeding* (internal: abdominal pain or swelling; back pain or backaches; bloody urine; bloody or black, tarry stools; constipation caused by hemorrhage-induced paralytic ileus or intestinal obstruction; coughing up blood; dizziness; headaches, sudden, severe, and/or continuing; joint pain, stiffness, or swelling; muscle pain or stiffness, severe or continuing; nosebleeds; unexpected or unusually heavy bleeding from vagina; vomiting of blood or material that looks like coffee grounds. invaded sites :e.g., sites of arterial punctures, venous cutdowns, recent surgery); **bleeding or oozing from cuts, invaded or disturbed sites, or wounds; blood pressure, decreased, not secondary to bleeding or to streptokinase-induced anaphylaxis; allergic reaction** (flushing or redness of skin; mild headache; mild muscle pain; nausea; skin rash, hives, or itching; troubled breathing or wheezing); *embolism/embolization, cholesterol; hypertension* (blurred vision, dizziness, nervousness, headache, pounding in the ears, slow or fast heartbeat); *livedo reticularis* (purplish red, net-like, blotchy spots on skin); *rhabdomyolysis* (dark-colored urine, fever, muscle cramps or spasms, muscle pain or stiffness, unusual tiredness or weakness); *stroke, hemorrhagic* (confusion; double vision; impairment of speech; weakness in arms or legs); *acidosis* (drowsiness, fatigue, headache, nausea, troubled breathing, vomiting); *allergic reaction, severe* (changes in facial skin color; fast or irregular breathing; large, hive-like swellings on eyelids, face, mouth, lips, or tongue; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; skin rash, hives, and/or itching; anaphylactic shock with sudden, severe decrease in blood pressure); *anaphylaxis* (changes in facial skin color; fast or irregular breathing; large, hive-like swellings on eyelids, face, mouth, lips, or tongue; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; skin rash, hives, and/or itching; anaphylactic shock with sudden, severe decrease in blood pressure); *cyanosis* (bluish color of fingernails, lips, skin, palms, or nail beds); *clot fragmentation with migration of the fragments resulting in additional embolic complications; hypotension* (blurred vision, confusion, dizziness, faintness or lightheadedness when getting up from a lying or sitting position suddenly, sweating, unusual tiredness or weakness); *hypoxia* (confusion, dizziness, fast heartbeat, shortness of breath, weakness); *tachycardia* (fast, pounding, or irregular heartbeat or pulse). **DIAGNOSTIC TESTS:** *acidosis; hypoxia.*

Secondary Actions or Rebound Effects: *infarction, cerebral* (blurred vision; confusion; numbness or tingling in face, arms, legs; severe headache; trouble speaking or walking); *infarction, myocardial* (chest pain or discomfort, pain or discomfort in arms, jaw, back or neck, shortness of breath, nausea, sweating, vomiting); *stroke, thromboembolic* (confusion; double vision; impairment of speech; weakness in arms or legs).

Thyroid Hormones (Systemic)

Commercial name(s): *Armour Thyroid; Cytomel; Eltroxin; Levo-T; Levothroid; Levoxyl; PMS-Levothyroxine Sodium; Synthroid; Thyral; Thyroid Strong; Triostat; Westhroid.*

Category: Thyroid hormone [Levothyroxine; Liothyronine; Liotrix; Thyroglobulin; Thyroid]; Antineoplastic [Levothyroxine; Liothyronine; Liotrix; Thyroglobulin; Thyroid]; Diagnostic aid (thyroid function) [Levothyroxine; Liothyronine].

Conventional indications: Hypothyroidism (diagnosis and treatment); Goiter (prophylaxis and treatment); Carcinoma, thyroid (prophylaxis and treatment); Thyroid function studies [Levothyroxine and liothyronine].

Primary Actions or Pathogenetic Symptoms

MIND: irritability; nervousness.

HEAD: *pseudotumor cerebri, in children* (severe headache); *hair, loss of, partial* (in children); craniosynostosis; headache.

EXTERNAL THROAT: *hyperthyroidism* (changes in appetite; changes in menstrual periods; chest pain; diarrhea; fast or irregular heartbeat; fever; hand tremors; headache; irritability; leg cramps; nervousness; sensitivity to heat; shortness of breath; sweating; trouble in sleeping; vomiting; weight loss);

STOMACH: appetite, changes in; vomiting.

RECTUM: diarrhea.

GENITALIA FEMALE: menstrual periods, changes in.

RESPIRATION: shortness of breath.

CHEST: heartbeat, fast or irregular; pain, chest.

EXTREMITIES: cramps, leg; tremors, hand.

SLEEP: trouble in sleeping.

FEVER: fever.

PERSPIRATION: sweating.

SKIN: *allergic reaction* (skin rash or hives).

GENERALITIES: *hyperthyroidism* (changes in appetite; changes in menstrual periods; chest pain; diarrhea; fast or irregular heartbeat; fever; hand tremors; headache; irritability; leg cramps; nervousness; sensitivity to heat; shortness of breath; sweating; trouble in sleeping; vomiting; weight loss); heartbeat, fast or irregular; overdose (changes in appetite; changes in menstrual periods; chest pain; diarrhea; fast or irregular heartbeat; fever; hand tremors; headache; irritability; leg cramps; nervousness; sensitivity to heat; shortness of breath; sweating; trouble in sleeping; vomiting; weight loss); sensitivity to heat; thyroid storm-like effects (confusion; fever; jaundice, mild ; mood swings; muscle wasting; psychosis; restlessness, extreme; weakness, marked); weight loss.

Secondary Actions or Rebound effects: *hypothyroidism* (changes in menstrual periods; clumsiness; coldness; constipation; dry, puffy skin; headache; listlessness; muscle aches; sleepiness; tiredness; weakness; weight gain).

Thyrotropin (Systemic)

Other commonly used names: Thyroid-stimulating hormone; TSH.

Commercial name(s): *Thyrogen* (Thyrotropin Alfa).

Category: Thyrotropic hormone; Diagnostic aid (thyroid function); Antineoplastic

Conventional indications: Thyroid function studies; Thyroid carcinoma (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: irritability; nervousness.

HEAD: headache.

FACE: flushing.

STOMACH: discomfort; nausea; vomiting.

BLADDER: urinate, frequent urge to.

RESPIRATION: shortness of breath.

CHEST: heartbeat, fast or irregular; pain, chest.

PERSPIRATION: sweating.

GENERALITIES: *allergic reaction* (faintness; itching, redness, or swelling at site of injection; skin rash); *anaphylaxis* (tightness of throat; wheezing); *flare, post-injection* (redness or swelling at site of injection); heartbeat, fast or irregular.

Thyrotropin Alfa (Systemic)

Commercial name(s): *Thyrogen*.

Category: Diagnostic aid (thyroid carcinoma); Thyrotropic hormone.

Conventional indications: Carcinoma, thyroid (diagnostic adjunct).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: headache; *enlargement of metastatic cancer, rapid, in critical locations such as the brain or spinal cord*.

STOMACH: nausea; *vomiting*.

CHEST: heartbeat, fast or irregular.

BACK: *enlargement of metastatic cancer, rapid, in critical locations such as the brain or spinal cord*.

PERSPIRATION: sweating, increased.

GENERALITIES: *asthenia* (unusual tiredness or weakness); *flu-like syndrome* (chills; fever); *paresthesia* (burning or prickling sensation on the skin); *allergic reaction* (faintness; itching, redness, or swelling at site of injection; skin rash); *anaphylaxis* (tightness of throat; wheezing); *enlargement of metastatic cancer, rapid, in critical locations such as the brain or spinal cord*; blood pressure, low; heartbeat, fast or irregular; hot flashes; weakness.

Tiagabine (Systemic)

Commercial name(s): *Gabitril*.

Category: Anticonvulsant.

Conventional indications: Epilepsy (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: **concentrating or paying attention, difficulty in; nervousness; confusion; depression, mental; speech and/or language problems; agitation; emotional lability** (quick to react or overreact emotionally); *hostility; memory problems*; consciousness, impaired (coma); hostility; lethargy (sluggishness).

VERTIGO: **dizziness; gait, abnormal** (walking in unusual manner).

EYE: *binding in the retina and uvea, residual* (in studies in dogs receiving a single dose of radiolabeled tiagabine); *nystagmus* (uncontrolled back-and-forth and/or rolling eye movements).

VISION: *amblyopia* (impaired vision).

MOUTH: *speech and/or language problems; ulcers, mouth.*

THROAT: **pharyngitis** (sore throat).

STOMACH: **vomiting; appetite, increased; nausea.**

ABDOMEN: *pain, abdominal.*

RECTUM: **diarrhea.**

BLADDER: *infection, urinary tract* (bloody or cloudy urine; burning, pain, or difficulty in urinating; frequent urge to urinate).

KIDNEYS: *infection, urinary tract* (bloody or cloudy urine; burning, pain, or difficulty in urinating; frequent urge to urinate).

COUGH: *cough, increased.*

EXTREMITIES: *ataxia* (clumsiness or unsteadiness); *myalgia* (muscle ache or pain); *weakness, muscle*; myoclonus (severe muscle twitching or jerking).

SLEEP: **somnolence** (drowsiness); *insomnia* (trouble in sleeping).

SKIN: *pruritus* (itching); *vasodilation* (flushing); *rash.*

GENERALITIES: **asthenia** (unusual tiredness or weakness); **ecchymosis** (blue or purple spots on skin); **influenza-like syndrome** (chills; fever; headache; muscle aches or pain); **tremor**; *myalgia* (muscle ache or pain); *pain (unspecified)*; *paresthesias* (burning, numbness, or tingling sensations); *vasodilation* (flushing). *weakness, muscle; Stevens-Johnson syndrome; weakness, generalized; coma* (consciousness, impaired); myoclonus (severe muscle twitching or jerking).

Secondary Actions or Rebound effects: seizure, tonic-clonic, precipitation of (increase in seizures).

Ticlopidine (Systemic)

Commercial name(s): *Ticlid.*

Category: Antithrombotic; Platelet aggregation inhibitor.

Conventional indications: Stroke, thromboembolic, initial or recurrent (prophylaxis); Thrombosis, subacute coronary artery stent-related (prophylaxis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

EYE: *bulla formation involving the eyes or other organ systems* (with Stevens-Johnson syndrome).

HEARING: *buzzing in ears; ringing in ears*

STOMACH: *indigestion; nausea; vomiting; ulcer, peptic.*

ABDOMEN: *pain, abdominal; bloating; gas; colitis; necrosis, hepatic.*

RECTUM: *diarrhea; diarrhea, bloody.*

KIDNEYS: *failure, renal; nephrotic syndrome.*

CHEST: *pneumonitis, allergic.*

EXTREMITIES: *arthropathy; myositis; neuropathy, peripheral.*

SKIN: *rash; itching; purpura* (red or purple spots on skin, varying in size from pinpoint to large bruises); *dermatitis, exfoliative* (fever; malaise; red, thickened, or scaly skin); *erythema multiforme* (fever; malaise; red skin lesions, often with a purple center); *hives; purpura, thrombotic thrombocytopenic* (change in mental status; dark or bloody urine; difficulty speaking; fever; pale color of skin; pinpoint red spots on skin; seizures; weakness; yellow eyes or skin).

GENERALITIES: *bleeding complications* (abdominal pain [severe] or swelling; back pain; blood in eyes; blood in urine; bloody or black, tarry stools; bruising or purple areas on skin; coughing up blood; decreased alertness; dizziness; headache, severe or continuing; joint pain or swelling; nosebleeds; paralysis or problems with coordination; stammering or other difficulty in speaking; unusually heavy bleeding or oozing from cuts or wounds; unusually heavy or unexpected menstrual bleeding; vomiting of blood or material that looks like coffee grounds); *neutropenia, including agranulocytosis* (fever, chills, sore throat, other signs of infection; ulcers, sores, or white spots in mouth); *angioedema; anemia, aplastic* (ulcers; unusual tiredness); *anemia, hemolytic, with reticulocytosis; arthropathy; bone marrow depression; bulla formation involving the eyes or other organ systems* (with Stevens-Johnson syndrome); *eosinophilia; erythema multiforme* (fever; malaise; red skin lesions, often with a purple center); *hepatitis* (yellow eyes or skin); *hyponatremia; jaundice, cholestatic* (yellow eyes or skin); *jaundice, hepatocellular; lupus erythematosus, systemic; myositis; nephrotic syndrome; pancytopenia; purpura, thrombotic thrombocytopenic* (change in mental status; dark or bloody urine; difficulty speaking; fever; pale color of skin; pinpoint red spots on skin; seizures; weakness; yellow eyes or skin); *sepsis; serum sickness; Stevens-Johnson syndrome* (blistering, peeling, or loosening of skin and mucous membranes; fever; malaise); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *thrombocytopenia, immune; vasculitis.*

DIAGNOSTIC TESTS: *neutropenia, including agranulocytosis; anemia, aplastic; anemia, hemolytic, with reticulocytosis; bone marrow depression; eosinophilia; hyponatremia; pancytopenia; thrombocytopenia; thrombocytopenia, immune; alanine aminotransferase (ALT [SGPT]) value, increased; bleeding time, prolonged.*

Tiludronate (Systemic)

Commercial name(s): *Skelid.*

Category: Bone resorption inhibitor.

Conventional indications: Paget's disease of bone (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

HEAD: headache.

EYE: *cataract* (blurred or decreased vision); *conjunctivitis* (red or irritated eyes); *glaucoma* (blurred vision; eye pain; headache).

NOSE: *rhinitis* (runny nose).

FACE: *edema* (swelling of face; unusual weight gain).

THROAT: *pharyngitis* (pain in throat).

STOMACH: *dyspepsia* (upset stomach); **nausea**; *vomiting*.

ABDOMEN: *flatulence* (gas).

RECTUM: diarrhea.

RESPIRATION: **infection, upper respiratory tract** (cough; fever; head congestion; hoarseness or other voice changes; nasal congestion; runny nose; sneezing; sore throat).

COUGH: *cough*.

CHEST: *pain, chest*.

BACK: *pain, back*.

EXTREMITIES: *exostosis* (bone growth); *arthralgia* (joint pain); *edema* (swelling of feet or lower legs; unusual weight gain).

SKIN: *rash*.

GENERALITIES: *exostosis* (bone growth); **infection, upper respiratory tract** (cough; fever; head congestion; hoarseness or other voice changes; nasal congestion; runny nose; sneezing; sore throat); **pain, body, general:** *arthralgia* (joint pain); *edema* (swelling of face; swelling of feet or lower legs; unusual weight gain); *flu-like syndrome* (fever; joint pain; muscle pain).

Tinidazole (Systemic)

Commercial name(s): Tindamax.

Category: Antiprotozoal.

Conventional indications: Amebiasis, extraintestinal (treatment) [Oral tinidazole]; Amebiasis, intestinal (treatment) [Oral tinidazole]; Giardiasis (treatment) [Oral tinidazole]; Trichomoniasis (treatment) [Oral tinidazole].

Primary Actions or Pathogenetic Symptoms

MIND: *coma* (change in consciousness, loss of consciousness); *confusion* (mood or mental changes); *depression*.

VERTIGO: *dizziness*; *giddiness*; *vertigo* (dizziness or lightheadedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: *headache*.

EYE: *angioedema* (large, hive-like swelling on eyelids).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: **taste, bitter or metallic**; *angioedema* (large, hive-like swelling on tongue); *candidiasis, oral* (white patches in the mouth or throat or on the tongue); *discoloration*,

tongue; stomatitis (swelling or inflammation of the mouth); *tongue, furry* (coating on tongue; white patches on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat); *candidiasis, oral* (white patches in the mouth or throat or on the tongue); *pharyngitis* (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: *anorexia* (loss of appetite, weight loss); *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); *nausea; pain, epigastric* (pain or discomfort in chest, upper stomach, or throat; heartburn); *vomiting*.

ABDOMEN: *hepatic abnormalities* (transaminase levels, increased).

RECTUM: *constipation* (difficulty having a bowel movement (stool)); *diarrhea*.

URINE: *darkened urine*.

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs); *discharge, vaginal, increased* (white or brownish vaginal discharge).

RESPIRATION: *bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: *bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *palpitation* (fast, irregular, pounding, or racing heartbeat or pulse).

EXTREMITIES: *cramps; angioedema* (large, hive-like swelling on hands, legs, feet); *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *arthritis* (pain; swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); *ataxia* (shakiness and unsteady walk; unsteadiness; trembling, or other problems with muscle control or coordination); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet, unsteadiness or awkwardness).

SLEEP: *drowsiness* (sleepiness); *insomnia* (sleeplessness; trouble sleeping; unable to sleep) (rebound effect?).

GENERALITIES: *cramps; fatigue* (unusual tiredness or weakness); *malaise* (general feeling of discomfort or illness; unusual tiredness or weakness); *weakness; angioedema; arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *arthritis* (pain; swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); *candida overgrowth; coma* (change in consciousness, loss of consciousness); *convulsions* (seizures); *hypersensitivity* (difficulty in breathing and/or swallowing; fever; hives; nausea; reddening of the skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *neuropathy, peripheral* (burning, numbness, tingling, or painful sensations; weakness in arms, hands, legs, or feet, unsteadiness or awkwardness); *neutropenia* (black, tarry, stools; chills; cough; fever; lower back or side pain; painful or

difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *palpitation* (fast, irregular, pounding, or racing heartbeat or pulse); *paresthesias* (burning, crawling, itching, numbness, prickling, “pins and needles,” or tingling feelings); *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: *darkened urine; leukopenia; neutropenia; thrombocytopenia; transaminase levels, increased.*

Tinzaparin (Systemic)

Commercial name(s): *Innohep.*

Category: Anticoagulant; Antithrombotic.

Conventional indications: Thromboembolism, (prophylaxis); Thromboembolism, pulmonary (treatment adjunct); Thrombosis, deep venous (treatment adjunct); Thromboembolism, pulmonary (treatment); Thrombosis, deep venous (treatment); Thrombosis of the extracorporeal system during hemodialysis (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion.*

VERTIGO: *dizziness.*

HEAD: *headache.*

EYE: *angioedema* (large, hive-like swelling on eyelids); *hemorrhage, ocular* (red or bloodshot eye; change in vision; seeing floating spots before the eyes).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

STOMACH: *nausea; vomiting.*

RECTUM: *constipation; bleeding, rectal* (black, tarry stools; blood in stools).

BLADDER: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

URINE: *hematuria* (blood in urine; lower back pain; pain or burning while urinating).

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs); *priapism* (prolonged, painful, inappropriate erection of the penis).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

COUGH: *hemoptysis* (coughing or spitting up blood).

CHEST: *angina pectoris* (chest pain; chest tightness; fast or irregular heartbeat; shortness of breath); *tachycardia* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *hemoptysis* (coughing or spitting up blood).

BACK: *pain, back; hematoma, epidural or spinal* (back pain; bowel/bladder dysfunction; leg weakness; numbness; paralysis; paresthesias).

EXTREMITIES: *angioedema* (large, hive-like swelling on hands, legs, feet); *ischemia, peripheral* (itching of skin; numbness and tingling of face, fingers, or toes; pain in arms legs, or lower back, especially pain in calves and/or heels upon exertion; pale, bluish-colored, or cold hands or feet; weak or absent pulses in legs) (rebound effect?).

SLEEP: *insomnia* (trouble in sleeping).

FEVER: *febrile reaction, acute* (chills or sudden fever; fatigue; headache; malaise; muscle cramps; excessive thirst; weakness).

SKIN: *rash; necrolysis, epidermal* (redness, tenderness, itching, burning, or peeling of skin; red or irritated eyes; sore throat; fever; chills); *necrosis, skin* (blue-green to black skin discoloration; pain, redness, or sloughing of skin at place of injection); *necrosis, ischemic or not* (break in the skin, especially associated with blue-black discoloration, swelling, or drainage of fluid) (rebound effect?); *purpura, allergic* (raised red swellings on the skin, the buttocks, legs or ankles; large, flat, blue or purplish patches in the skin; painful knees and ankles; fever; stomach pain; bloody or black, tarry stools; blood in urine); *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *hemorrhage* (bleeding gums; coughing up blood; difficulty in breathing or swallowing; dizziness; headache; increased menstrual flow or vaginal bleeding; nosebleeds; paralysis; prolonged bleeding from cuts; red or dark brown urine; red or black, tarry stools; shortness of breath; unexplained pain, swelling, or discomfort, especially in the chest, abdomen, joints, or muscles; unusual bruising; vomiting of blood or coffee ground-like material; weakness); **hematoma at injection site** (deep, dark purple bruise, pain, or swelling at place of injection); *anemia* (pale skin; troubled breathing, exertional; unusual bleeding or bruising; unusual tiredness or weakness); *hypertension* (blurred vision; dizziness; severe or continuing dull nervousness; headache; pounding in the ears; slow or fast heartbeat); *hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); *pain at injection site; tachycardia* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *thrombocytopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *abscess* (accumulation of pus; swollen, red, tender area of infection; fever); *agranulocytosis* (cough or hoarseness; fever with or without chills; general feeling of tiredness or weakness; lower back or side pain; painful or difficult urination; sore throat; sores, ulcers, or white spots on lips or in mouth; unusual bleeding or bruising); *allergic reaction* (fever; skin rash, hives, or itching); *anaphylactoid reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *angioedema; febrile reaction, acute* (chills or sudden fever; fatigue; headache; malaise; muscle cramps; excessive thirst; weakness); *hematoma* (collection of blood under the skin; dark, purple bruise; pain, redness, or swelling); *hepatitis, cholestatic* (abdominal or stomach pain; chills; clay-colored stools; dark urine; diarrhea; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *ischemia, peripheral* (itching of skin; numbness and tingling of face, fingers, or toes; pain in arms legs, or lower back, especially

pain in calves and/or heels upon exertion; pale, bluish-colored, or cold hands or feet; weak or absent pulses in legs) (rebound effect?); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *Steven-Johnson syndrome* (redness, tenderness, burning, blistering or peeling of skin (usually on the backs of arms and the fronts of legs, mouth, eyes or hands and feet); fever; chills; headache; unusual tiredness or weakness); *thrombocythemia* (pain, warmth, or burning in fingers, toes and legs; headache; dizziness; problems with vision or hearing).

DIAGNOSTIC TESTS: *anemia*; *hematuria*; *thrombocytopenia*; *agranulocytosis*; *hepatic enzymes, increased*; *pancytopenia*; *thrombocythemia*.

Secondary Actions or Rebound Effects: *embolism, pulmonary* (chest pain; cough; fainting; fast heartbeat; sudden shortness of breath or troubled breathing; dizziness or lightheadedness).

Tioconazole (Topical)

Commercial name(s): *Trosyd AF*; *Trosyd J*.

Category: Antifungal (topical).

Conventional indications: Candidiasis, cutaneous (treatment); Tinea corporis (treatment); Tinea cruris (treatment); Tinea pedis (treatment); Tinea versicolor (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *burning, itching, redness, skin rash, swelling, or other signs of skin irritation not present before therapy.*

Tiopronin (Systemic)

Commercial name(s): *Thiola*.

Category: Antiurrolithic (cystine calculi).

Conventional indications: Cystinuria (treatment); Renal calculi, cystine (prophylaxis).

Primary Actions or Pathogenetic Symptoms

NOSE: *smell, changes in.*

MOUTH: *sores in mouth; ulcers in mouth; taste, changes in.*

THROAT: *pharyngitis* (hoarseness; sore throat).

STOMACH: *anorexia* (loss of appetite); *nausea*; *vomiting*.

ABDOMEN: *bloating*; *gas*; *pain, abdominal*.

RECTUM: *diarrhea*.

STOOL: *soft stools*.

KIDNEYS: *nephrotic syndrome*.

URINE: *hematuria* (bloody urine); *proteinuria* (cloudy urine).

LARYNX AND TRACHEA: edema, laryngeal (difficulty in breathing; difficulty in swallowing; hoarseness)

RESPIRATION: distress, respiratory (difficulty in breathing); dyspnea (difficulty in breathing)

COUGH: hemoptysis (coughing up blood)

CHEST: bronchiolitis (cough; difficulty in breathing; fever); hemoptysis (coughing up blood); infiltrates, pulmonary (cough; chest pain; unusual tiredness or weakness)

EXTREMITIES: arthralgia (pain in joints); edema (swelling of feet or lower legs); myalgia (muscle pain)

CHILL: chills

FEVER: fever

SKIN: dryness, unusual; elastosis perforans serpiginosa (itching of skin); itching; peeling; pemphigus (itching of skin); rash; urticaria (hives); warts; wrinkling skin

GENERALITIES: ecchymosis (pain, swelling, tenderness of subcutaneous tissue in affected area); jaundice (yellow skin or eyes); adenopathy (tenderness of glands); anemia (unusual tiredness or weakness); arthralgia (pain in joints); bleeding, increased; eosinophilia; leukopenia (sore throat and fever); myalgia (muscle pain); nephrotic syndrome (cloudy or bloody urine; high blood pressure; swelling of feet or lower legs); thrombocytopenia (unusual bleeding or bruising); weakness; Goodpasture's syndrome (difficulty in breathing, spitting up blood, or unusual tiredness or weakness); lupus erythematosus-like syndrome, systemic (SLE) (fever, general feeling of discomfort, illness, or weakness; joint pain; skin rash, blisters, hives or itching; swelling of lymph glands); myasthenia gravis syndrome (difficulty in breathing, chewing, talking, or swallowing; double vision; muscle weakness)

DIAGNOSTIC TESTS: anemia; eosinophilia; hematuria; leukopenia; proteinuria; thrombocytopenia.

Tiotropium (Inhalation-Local)

Commercial name(s): *Spiriva; Spiriva HandiHaler.*

Category: Bronchodilator.

Conventional indications: Bronchitis, chronic (treatment); Emphysema, pulmonary (treatment); Pulmonary disease, chronic obstructive, other (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: depression (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); mental status, altered (a female patient).

EYE: angioedema (large, hive-like swelling on eyelids); conjunctivitis, bilateral.

NOSE: rhinitis (stuffy nose; runny nose; sneezing); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); epistaxis (bloody nose).

FACE: angioedema (large, hive-like swelling on face, lips).

MOUTH: **dryness;** *moniliasis* (sore mouth or tongue; white patches in mouth and/or on tongue); *stomatitis* (swelling or inflammation of the mouth; canker sores; sores, ulcers, or white spots on lips or tongue or inside the mouth); *angioedema* (large, hive-like swelling on tongue).

THROAT: **pharyngitis** (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes); *dysphonia* (hoarseness; sore throat; voice changes); *angioedema* (large, hive-like swelling on throat).

STOMACH: **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); *reflux, gastroesophageal* (heartburn; vomiting); *vomiting*.

ABDOMEN: *herpes zoster* (painful blisters on trunk of body); *pain, abdominal*.

RECTUM: *constipation* (difficulty having a bowel movement [stool]).

BLADDER: **infection, urinary tract** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *retention, urinary* (painful or difficult urination).

KIDNEYS: **infection, urinary tract** (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

LARYNX AND TRACHEA: *laryngitis* (cough; dryness or soreness of throat; hoarseness; trouble in swallowing; voice changes).

RESPIRATION: **infection, upper respiratory tract** (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

CHEST: *bronchodilator*; **angina pectoris** (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea); **pain, chest;** *herpes zoster* (painful blisters on trunk of body); *fibrillation, atrial* (fast or irregular heartbeat, dizziness, fainting); *palpitations* (irregular heartbeat); *tachycardia, supraventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations).

BACK: *herpes zoster* (painful blisters on trunk of body).

EXTREMITIES: *myalgia* (muscle pain); *pain, leg or skeletal*; *angioedema* (large, hive-like swelling on hands, legs, feet).

SKIN: *herpes zoster* (painful blisters on trunk of body); *rash*; *pruritus* (itching skin); *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: **infection, upper respiratory tract** (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **sinusitis** (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *allergic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *edema* (swelling); *hypercholesterolemia* (large amount of cholesterol in the blood); *hyperglycemia* (abdominal pain; blurred vision; dry mouth; fatigue; flushed, dry skin; fruit-like breath odor; increased

hunger; increased thirst; increased urination; nausea; sweating; troubled breathing; unexplained weight loss; vomiting); infection (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); myalgia (muscle pain); pain, skeletal; paresthesia (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); fibrillation, atrial (fast or irregular heartbeat, dizziness, fainting); palpitations (irregular heartbeat); tachycardia, supraventricular (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); anticholinergic signs and symptoms; tremors (a female patient).

DIAGNOSTIC TESTS: hypercholesterolemia; hyperglycemia; fibrillation, atrial; tachycardia, supraventricular.

Tirolon (Systemic)

Commercial name(s): Aggrastat.

Category: Platelet aggregation inhibitor.

Conventional indications: Thrombosis, acute coronary syndrome-related (prophylaxis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache; bleeding, intracranial.

STOMACH: nausea; bleeding, gastrointestinal.

ABDOMEN: pain, pelvic; bleeding, gastrointestinal or retroperitoneal.

RECTUM: bleeding, gastrointestinal.

STOOL: blood in feces.

BLADDER: bleeding, genitourinary.

URINE: blood in urine.

GENITALIA MALE: bleeding, genitourinary.

GENITALIA FEMALE: bleeding, genitourinary.

CHEST: bradycardia; dissection, coronary artery.

EXTREMITIES: pain, leg.

FEVER: fever.

PERSPIRATION: sweating.

GENERALITIES: bleeding; bradycardia; edema; reflex, vasovagal; thrombocytopenia.

DIAGNOSTIC TESTS: blood in urine; thrombocytopenia.

Tizanidine (Systemic)

Commercial name(s): Zanaflex.

Category: Antispastic.

Conventional indications: Spasticity (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: anxiety; depression; nervousness; speech disorder (difficulty in speaking); agitation; delusions; depersonalization; euphoria (unusual feeling of well-being);

hallucinations, visual (seeing things that are not there); mood or mental changes; psychoses in association with the hallucinations; coma (change in consciousness; loss of consciousness); stupor (decreased awareness or responsiveness; severe sleepiness).

VERTIGO: **dizziness**; syncope (fainting).

HEAD: alopecia (loss of hair); migraine headache.

EYE: pain, eye.

VISION: amblyopia (blurred vision); visual field defects (blurred vision).

NOSE: **rhinitis** (runny nose).

MOUTH: **dryness**; **speech disorder** (difficulty in speaking).

THROAT: **pharyngitis** (pain or burning in throat); dysphagia (difficulty swallowing).

EXTERNAL THROAT: hypothyroidism (coldness; dry, puffy skin; unusual tiredness; weight gain); pain, neck.

STOMACH: **dyspepsia** (heartburn); **pain**; **vomiting**; hemorrhage, gastrointestinal (black, tarry stools; bloody vomit).

ABDOMEN: **hepatotoxicity** (loss of appetite; nausea and/or vomiting; yellow eyes or skin); hemorrhage, gastrointestinal (black, tarry stools; bloody vomit); injury, liver (pruritus; dark urine; persistent anorexia; yellow eyes or skin; influenza (flu)-like symptoms; right upper quadrant tenderness); failure, liver (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin).

RECTUM: **constipation**; **diarrhea**; hemorrhage, gastrointestinal (black, tarry stools; bloody vomit).

BLADDER: **infections, urinary tract** (pain or burning while urinating); frequency, urinary (increased need to urinate; passing urine more often).

KIDNEYS: **infections, urinary tract** (pain or burning while urinating); calculi, renal (kidney stones).

RESPIRATION: infections, upper respiratory tract (cough, fever, or sore throat); depression, respiratory (pale or blue lips, fingernails, or skin; difficult or troubled breathing; irregular, fast or slow, or shallow breathing; shortness of breath); failure, respiratory (pale or blue lips, fingernails, or skin; difficult or troubled breathing; irregular, fast or slow, or shallow breathing; shortness of breath); pneumonia.

CHEST: **bradycardia** (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); arrhythmias (irregular heartbeat); pneumonia.

BACK: **pain, back**.

EXTREMITIES: **myasthenia** (muscle weakness); arthritis (joint or muscle pain or stiffness); tremor (trembling or shaking); edema (swelling of feet or lower legs).

SLEEP: **drowsiness**; **somnolence** (sleepiness).

FEVER: **fever**.

PERSPIRATION: **sweating, increased**.

SKIN: **rash**; **ulcers, skin** (sores on the skin); alopecia (loss of hair); cellulitis (swollen area that feels warm and tender); dryness.

GENERALITIES: **asthenia** (unusual tiredness and/or weakness); **bradycardia** (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); **dyskinesia** (uncontrolled movements of the body);

hypotension (blurred vision; confusion, dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **myasthenia** (muscle weakness); **paresthesias** (tingling, burning, or prickling sensations); alopecia (loss of hair); anemia (unusual tiredness or weakness); arrhythmias (irregular heartbeat); arthritis (joint or muscle pain or stiffness); flu syndrome (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); hypothyroidism (coldness; dry, puffy skin; unusual tiredness; weight gain); infections, upper respiratory tract (cough, fever, or sore throat); leukocytosis; leukopenia (chills, fever, or sore throat); seizures; tremor (trembling or shaking); weight loss; coma (change in consciousness; loss of consciousness); death; sepsis.

DIAGNOSTIC TESTS: anemia (unusual tiredness or weakness); calculi, renal; leukocytosis; leukopenia (chills, fever, or sore throat).

Secondary Actions or Rebound Effects: spasms, muscle, increased; tone, muscle, increased.

Tobramycin (Ophthalmic)

Commercial name(s): AKTob; Tobrex.

Category: Antibacterial (ophthalmic).

Conventional indications: Ocular infections (treatment); Blepharitis, bacterial (treatment); Blepharoconjunctivitis (treatment); Conjunctivitis, bacterial (treatment); Dacryocystitis (treatment); Keratitis, bacterial (treatment); Keratoconjunctivitis (treatment); Meibomianitis (treatment); Keratitis, exposure (treatment); Keratitis, neuroparalytic (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: burning; hypersensitivity (itching, redness, swelling, or other sign of eye or eyelid irritation not present before therapy); stinging; itching of the eyes or eyelids; keratitis, punctate (painful irritation of the clear front part of the eye); redness of the eyes or eyelids; swelling of the eyes or eyelids; watering, increased.

VISION: *blurred vision* [ophthalmic ointment dosage form].

GENERALITIES: *overgrowth of nonsusceptible organisms, including fungi.*

Tobramycin and Dexamethasone (Ophthalmic)

Commercial name(s): Tobradex.

Category: Corticosteroid (ophthalmic); Anti-inflammatory (steroidal), ophthalmic; Antibacterial (ophthalmic).

Conventional indications: Inflammation, ocular (treatment); Ocular infections, superficial (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: sensitivity (itching and swelling of eyelid; redness of eye); toxicity, ocular, localized (itching and swelling of eyelid; redness of eye); cataract, posterior subcapsular (blurred vision); infections of the cornea, fungal; pressure, intraocular, increased, with possible development of glaucoma and possible optic nerve damage (may be asymptomatic; gradual blurring or loss of vision; eye pain; possible damage to the optic nerve and defects in visual acuity and fields of vision); ulceration, corneal; edema of eyelid; erythema; itching of eyelid; keratitis, punctate; lacrimation, increased.

GENERALITIES: healing, wound, delayed; infections, secondary; overgrowth of nonsusceptible organisms, including bacteria and fungi.

Tocainide (Systemic)

Commercial name(s): Tonocard.

Category: Antiarrhythmic.

Conventional indications: Arrhythmias, ventricular (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: confusion; nervousness.

VERTIGO: dizziness; lightheadedness.

HEAD: headache.

VISION: blurred vision.

STOMACH: anorexia (loss of appetite); nausea; vomiting.

RESPIRATION: pneumonia (cough or shortness of breath); dyspnea; depression, cardiopulmonary.

COUGH: cough.

CHEST: alveolitis (cough or shortness of breath); edema, pulmonary (cough or shortness of breath); fibrosis, pulmonary (cough or shortness of breath); pneumonia (cough or shortness of breath); pneumonitis (cough or shortness of breath); arrest, cardiac; depression, cardiopulmonary.

EXTREMITIES: numbness of fingers and toes; shaking; tingling of fingers and toes.

PERSPIRATION: sweating.

SKIN: erythema multiforme (blisters on skin; peeling or scaling of skin; severe skin rash; sores in mouth; fever may also be associated with Stevens-Johnson syndrome); skin reactions, severe, including erythema multiforme, exfoliative dermatitis, and Stevens-Johnson syndrome (blisters on skin; peeling or scaling of skin; severe skin rash; sores in mouth; fever may also be associated with Stevens-Johnson syndrome); rash.

GENERALITIES: agranulocytosis (fever or chills); anemia, aplastic; blood dyscrasias; erythema multiforme (blisters on skin; peeling or scaling of skin; severe skin rash; sores in mouth; fever may also be associated with Stevens-Johnson syndrome); leukopenia (fever or chills); neutropenia; shaking; Stevens-Johnson syndrome (blisters on skin; peeling or scaling of skin; severe skin rash; sores in mouth; fever may also be associated with Stevens-Johnson syndrome); thrombocytopenia (unusual bleeding or bruising); trembling; death; central nervous system effects; convulsions.

DIAGNOSTIC TESTS: agranulocytosis; anemia, aplastic; leukopenia; neutropenia; thrombocytopenia.

Secondary Actions or Rebound Effects: arrhythmias, ventricular (irregular heartbeat).

Tolazoline (Parenteral-Systemic)

Commercial name(s): Artonil; Benzazoline; Benzidazol; Benzolin; Benzylimidazoline; Dilatol Asi; Divascol; Imidalin; Imidaline; Kasimid; Lambril; Olitensol; Peripherine; Phenylmethylimidazoline; Prefaxil; Priscol; Priscoline; Tolazolin; Vasimid; Vasodil; Vasodilatan.

Category: Antihypertensive (pulmonary).

Conventional indications: Hypertension, persistent pulmonary (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *mydriasis*.

STOMACH: hemorrhage, gastrointestinal; nausea; vomiting; hypersecretion, gastric.

ABDOMEN: hemorrhage, gastrointestinal.

RECTUM: hemorrhage, gastrointestinal; diarrhea.

BLADDER: oliguria.

KIDNEYS: failure, renal, acute.

CHEST: *hypotension, pulmonary*; tachycardia; stimulation, cardiac, direct.

EXTREMITIES: vasodilation, peripheral (flushing).

SKIN: pilomotor activity, increased (goose flesh).

GENERALITIES: alkalosis, hypochloremic; hypotension, systemic; thrombocytopenia; tachycardia; vasodilation, peripheral (flushing).

DIAGNOSTIC TESTS: alkalosis, hypochloremic; thrombocytopenia.

Tolcapone (Systemic)

Commercial name(s): Tasmar.

Category: Antidyskinetic (COMT inhibitor).

Conventional indications: Parkinson's disease (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

MIND: hallucinations (seeing, feeling, or hearing things that are not there); confusion; agitation; irritability; lethargy (unusual drowsiness, dullness, or feeling of sluggishness); mental deficiency (difficulty in thinking or concentrating).

VERTIGO: dizziness; orthostatic complaints (dizziness or lightheadedness when getting up from a lying or sitting position); syncope (fainting); balance control, loss of; falling; hypotension, orthostatic.

HEAD: headache.

NOSE: congestion, sinus (headache; stuffy nose).

MOUTH: xerostomia (dryness of mouth).

EXTERNAL THROAT: *pain, neck.*

STOMACH: *anorexia* (loss of appetite); *nausea*; **vomiting**; *dyspepsia* (heartburn).

ABDOMEN: *pain, abdominal*; *flatulence* (gas); *fibrosis, retroperitoneal*; *hepatocellular injury, severe* (including idiopathic fulminant liver failure resulting in death); *tenderness, right upper quadrant* (tenderness in upper right part of abdomen).

RECTUM: *constipation*; *diarrhea*.

STOOL: *light-colored stools.*

BLADDER: *infection, urinary tract* (bloody or cloudy urine; difficult or painful urination; frequent urge to urinate).

KIDNEYS: *infection, urinary tract* (bloody or cloudy urine; difficult or painful urination; frequent urge to urinate).

URINE: *discoloration of urine to bright yellow*; *hematuria* (blood in urine); *dark urine*.

RESPIRATION: *infection, upper respiratory tract* (cough; fever; nasal congestion; runny nose; sneezing; sore throat); *dyspnea* (troubled breathing).

CHEST: *pain, chest*; *discomfort, chest*; *effusion, pleural*; *infiltrates, pulmonary*; *thickening, pleural*.

EXTREMITIES: *arthritis* (joint pain, redness, or swelling); *burning of feet*; *cramps, muscle*; *rhabdomyolysis*; *stiffness*.

SLEEP: *insomnia* (trouble in sleeping); *somnolence* (drowsiness)

DREAMS: *dreaming, excessive*.

FEVER: *fever*

PERSPIRATION: *sweating, increased*.

SKIN: *pruritus* (itching).

GENERALITIES: *infection, upper respiratory tract* (cough; fever; nasal congestion; runny nose; sneezing; sore throat); *fatigue* (unusual tiredness or weakness); *hyperkinesia* (hyperactivity); *influenza-like symptoms* (chills; fever; general feeling of discomfort or illness; headache; muscle pain); *arthritis* (joint pain, redness, or swelling); *cramps, muscle*; *hyperactivity*; *hypotension* (low blood pressure); *hypotension, orthostatic*; *jaundice* (yellow eyes or skin); *muscle rigidity*; *multiorgan system failure* (rapidly progressing to death); *paresthesia* (burning, prickling, or tingling sensations); *rhabdomyolysis*; *symptom complex* (elevated temperature, muscular rigidity, and altered consciousness, resembling the neuroleptic malignant syndrome; creatine kinase (CK), elevated).

DIAGNOSTIC TESTS: *discoloration of urine to bright yellow*; *hematuria*; *creatinine kinase (CK), elevated*; *dark urine*.

Secondary Actions or Rebound Effects: *dyskinesia* (twitching, twisting, or other unusual body movements); *dystonia* (twisting or other unusual body movements).

Tolnaftate (Topical)

Commercial name(s): *Aftate for Athlete's Foot Aerosol Spray Liquid*; *Aftate for Athlete's Foot Aerosol Spray Powder*; *Aftate for Athlete's Foot Gel*; *Aftate for Athlete's Foot Sprinkle Powder*; *Aftate for Jock Itch Aerosol Spray Powder*; *Aftate for Jock Itch Gel*; *Aftate for Jock Itch Sprinkle Powder*; *Genaspore Cream*; *NP-27 Cream*; *NP-27 Powder*;

NP-27 Solution; NP-27 Spray Powder; Pitrex Cream; Tinactin Aerosol Liquid; Tinactin Aerosol Powder; Tinactin Antifungal Deodorant Powder Aerosol; Tinactin Cream; Tinactin Jock Itch Aerosol Powder; Tinactin Jock Itch Cream; Tinactin Jock Itch Spray Powder; Tinactin Plus Aerosol Powder; Tinactin Plus Powder; Tinactin Powder; Tinactin Solution; Ting Antifungal Cream; Ting Antifungal Powder; Ting Antifungal Spray Liquid; Ting Antifungal Spray Powder; Zeasorb-AF Powder.

Category: Antifungal (topical).

Conventional indications: Tinea capitis (treatment); Tinea corporis (treatment); Tinea cruris (treatment); Tinea manuum (treatment); Tinea pedis (treatment); Tinea versicolor (treatment); Tinea barbae (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *hypersensitivity* (skin irritation not present before therapy).

Tolterodine (Systemic)

Commercial name(s): *Detrol; Detrol LA.*

Category: Antispasmodic (urinary bladder).

Conventional indications: Bladder hyperactivity (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: **dizziness;** *hypertension* (dizziness).

HEAD: headache.

EYE: xerophthalmia (dry eyes).

VISION: abnormal vision, including problems with accommodation (difficulty adjusting to distances).

MOUTH: dryness.

STOMACH: dyspepsia (upset stomach); **nausea.**

ABDOMEN: pain, abdominal; *flatulence* (stomach gas).

RECTUM: constipation; diarrhea.

BLADDER: infection, urinary tract (difficult, burning, or painful urination; frequent urge to urinate; bloody or cloudy urine); *dysuria* (difficult urination).

KIDNEYS: infection, urinary tract (difficult, burning, or painful urination; frequent urge to urinate; bloody or cloudy urine).

CHEST: pain, chest.

SLEEP: somnolence (drowsiness).

GENERALITIES: fatigue; influenza-like symptoms (joint pain); *hypertension* (dizziness).

Topiramate (Systemic)

Commercial name(s): *Topamax.*

Category: Anticonvulsant; Migraine headache prophylactic.

Conventional indications: Epilepsy (treatment adjunct); Epilepsy, Lennox-Gastaut syndrome (treatment adjunct); Headache, migraine (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: attention, difficulty with; concentration, difficulty with; confusion; memory problems; nervousness; retardation, psychomotor (generalized slowing of mental and physical activity); speech or language problems; aggression; agitation; apathy; depression, mental; irritability; mood or mental changes.

VERTIGO: dizziness.

EYE: glaucoma, secondary angle closure, and myopia, acute (blurred vision; eye pain; eye redness; increased eye pressure; rapidly decreasing vision); nystagmus (uncontrolled back-and-forth and/or rolling eye movements); conjunctivitis (red or irritated eyes); pain, eye.

VISION: diplopia or other vision problems (double vision or other vision problems); myopia, acute and secondary angle closure glaucoma (blurred vision; eye pain; eye redness; increased eye pressure; rapidly decreasing vision).

HEARING: tinnitus (ringing or buzzing in ears; hearing loss).

NOSE: epistaxis (nosebleeds).

MOUTH: speech or language problems; gingivitis (red, irritated, or bleeding gums); taste perversion (change in sense of taste).

THROAT: pharyngitis (sore throat).

STOMACH: nausea; anorexia (loss of appetite); dyspepsia (heartburn).

ABDOMEN: pain, abdominal; failure, hepatic (abdominal or stomach pain; clay-colored stools; fatigue; fever); pancreatitis (bloating; constipation; loss of appetite; pains in stomach).

RECTUM: constipation.

BLADDER: dysuria (pain on urination); frequency, urinary (frequent urination); incontinence (loss of bladder control).

KIDNEYS: acidosis, tubular, renal (fatigue; confusion; increased rate of breathing; muscle pain); calculi, renal (flank pain; difficult or painful urination).

URINE: hematuria (blood in urine).

GENITALIA MALE: impotence (decrease in sexual performance or desire); libido, decreased (decrease in sexual performance or desire).

GENITALIA FEMALE: dysmenorrhea (menstrual pain or other changes); menstrual changes (menstrual pain or other changes); libido, decreased (decrease in sexual performance or desire).

RESPIRATION: dyspnea (troubled breathing).

CHEST: pain, breast, in females; pain, chest.

BACK: pain, back.

EXTREMITIES: ataxia (clumsiness or unsteadiness); retardation, psychomotor (generalized slowing of mental and physical activity); pain, leg; pemphigus (blisters in the mouth; blisters on the trunk, scalp, or other areas; itching).

SLEEP: somnolence (drowsiness).

CHILL: chills.

PERSPIRATION: sweating, increased.

SKIN: *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *necrolysis, toxic epidermal* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *pemphigus* (blisters in the mouth; blisters on the trunk, scalp, or other areas; itching); *pruritus* (itching); *rash*.

GENERALITIES: **asthenia** (unusual tiredness or weakness); **fatigue**; **paresthesia** (burning, prickling, or tingling sensations); **tremor**; *hypoesthesia* (lessening of sensations or perception); *leukopenia* (fever; chills; sore throat); *weight loss*; *anemia* (pale skin; unusual tiredness or weakness); *edema* (swelling); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *hepatitis* (pain or tenderness in upper abdomen; yellow eyes or skin; fever); *hot flushes*; *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *leukopenia*; *calculi, renal*; *carbonic anhydrase inhibition, weak*; *hematuria*.

Topotecan (Systemic)

Commercial name(s): *Hycamtin*.

Category: Antineoplastic.

Conventional indications: Carcinoma, ovarian (treatment); Carcinoma, lung, small cell (SCLC) (treatment); Carcinoma, lung, non-small cell (NSCLC) (treatment); Myelodysplastic syndrome (treatment); Chronic myelomonocytic leukemia (CMML) (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: **alopecia** (loss of hair); **headache**.

EYE: *angioedema* (large, hive-like swellings on eyelids).

FACE: *angioedema* (large, hive-like swellings on face, lips).

MOUTH: **stomatitis** (sores, ulcers, or white spots on lips or tongue or inside the mouth); *angioedema* (large, hive-like swellings on mouth, and/or tongue).

STOMACH: **anorexia** (loss of appetite); **nausea**; **vomiting**.

ABDOMEN: **pain, abdominal**.

RECTUM: **constipation**; **diarrhea**.

RESPIRATION: **dyspnea** (shortness of breath or troubled breathing).

FEVER: **fever**; **neutropenia, with or without infection (febrile neutropenia)** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination).

SKIN: **alopecia** (loss of hair); *dermatitis, severe* (skin rash and/or itching, severe).

GENERALITIES: **alopecia** (loss of hair); **anemia** (unusual tiredness or weakness); **asthenia** (muscle weakness); **bruising at place of injection**; **fatigue**; **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **neutropenia, with or without infection (febrile neutropenia)** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **paresthesia** (burning or tingling in hands or feet); **redness at place of injection**; **thrombocytopenia** (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *anaphylactoid reactions* (changes in facial skin color ; skin rash, hives, and/or itching; fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing).

DIAGNOSTIC TESTS: **anemia**; **leukopenia**; **neutropenia, with or without infection (febrile neutropenia)**; **thrombocytopenia**.

Toremifene (Systemic)

Commercial name(s): *Fareston*.

Category: Antineoplastic.

Conventional indications: Carcinoma, breast (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*; vertigo.

HEAD: headache.

EYE: *cataracts*; *dryness*; *glaucoma* (blurred vision; changes in vision); *keratopathy, corneal*.

VISION: *visual fields, abnormal*.

STOMACH: *nausea*; *vomiting*.

ABDOMEN: **hepatotoxicity** (elevated hepatic enzyme and bilirubin levels; jaundice); *bilirubin levels, elevated*.

GENITALIA FEMALE: *hyperplasia, endometrial* (change in vaginal discharge; pain or feeling of pressure in pelvis; vaginal bleeding) (in humans, monkeys and dogs); *bleeding, vaginal*.

CHEST: *tumor flare* (bone pain; diffuse musculoskeletal pain and erythema with increased size of tumor lesions); *embolus, pulmonary* (shortness of breath); *failure, cardiac* (swelling of feet or lower legs); *infarction, myocardial* (chest pain).

EXTREMITIES: *thrombophlebitis* (pain or swelling in legs); *thrombosis* (pain or swelling in legs); ataxia.

GENERALITIES: **hot flashes** (sudden sweating and feelings of warmth); *hypercalcemia* (confusion; increased urination; loss of appetite; unusual tiredness); *tumor flare* (bone pain; diffuse musculoskeletal pain and erythema with increased size of tumor lesions); *bilirubin levels, elevated*; *leukopenia*; *thrombocytopenia*; *thrombophlebitis* (pain or swelling in legs); *thrombosis* (pain or swelling in legs).

DIAGNOSTIC TESTS: *hypercalcemia*; *bilirubin levels, elevated*; *hepatic enzyme, elevated*; *leukopenia*; *thrombocytopenia*.

Torsemide (Systemic)

Commercial name(s): *Demadex*.

Category: Diuretic; Antihypertensive.

Conventional indications: Edema (treatment); Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness; hypotension, orthostatic* (dizziness when getting up from a sitting or lying position).

HEAD: *headache.*

EAR: *ototoxicity* (ringing or buzzing in the ears or any loss of hearing).

STOMACH: *disturbance, gastrointestinal* (stomach upset); *hemorrhage, gastrointestinal* (black, tarry stools).

ABDOMEN: *disturbance, gastrointestinal* (stomach upset); *hemorrhage, gastrointestinal* (black, tarry stools).

RECTUM: *constipation; hemorrhage, gastrointestinal.*

BLADDER: *frequent urination.*

URINE: *copious (increased) urine.*

SKIN: *allergic reaction* (skin rash).

GENERALITIES: *hypotension; alkalosis, hypochloremic* (dryness of mouth; fast or irregular heartbeat; increased thirst; mood or mental changes; muscle pain or cramps; nausea or vomiting; unusual tiredness or weakness); *hypokalemia* (dryness of mouth; fast or irregular heartbeat; increased thirst; mood or mental changes; muscle pain or cramps; nausea or vomiting; unusual tiredness or weakness); *hyponatremia* (dryness of mouth; fast or irregular heartbeat; increased thirst; mood or mental changes; muscle pain or cramps; nausea or vomiting; unusual tiredness or weakness); *hypotension, orthostatic* (dizziness when getting up from a sitting or lying position).

DIAGNOSTIC TESTS: *alkalosis, hypochloremic; hypokalemia; hyponatremia.*

Tositumomab and Iodine I 131 Tositumomab (Systemic)

Commercial name(s): *Bexxar*.

Category: Antineoplastic (radioactive); Monoclonal antibody.

Conventional indications: Lymphomas, non-Hodgkin's (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *headache, mild* (pain in one or more areas of the head).

EYE: *angioedema* (large, hive-like swelling on eyelids).

NOSE: *rhinitis* (stuffy nose; runny nose; sneezing).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: **angioedema** (large, hive-like swelling on throat); **pharyngitis** (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

EXTERNAL THROAT: **hypothyroidism** (constipation; depressed mood; dry skin and hair; feeling cold; hair loss; hoarseness or husky voice; muscle cramps and stiffness; slowed heartbeat; weight gain; unusual tiredness or weakness); **pain, neck.**

STOMACH: **anorexia**; **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); **nausea**; **pain**; **upset stomach, feeling of**; **vomiting**; **vomiting, feeling like.**

ABDOMEN: **bowel movements, increased**; **pain, abdominal.**

RECTUM: **constipation** (difficulty having a bowel movement (stool)); **diarrhea.**

STOOL: **loose or liquid stools.**

GENITALIA MALE: **angioedema** (large, hive-like swelling on sex organs).

GENITALIA FEMALE: **angioedema** (large, hive-like swelling on sex organs).

RESPIRATION: **dyspnea** (difficult or labored breathing; shortness of breath; tightness in chest; wheezing); **pneumonia** (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); **bronchospasm** (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing).

COUGH: **cough.**

CHEST: **effusion, pleural** (chest pain; shortness of breath); **pain, chest**; **pneumonia** (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); **bronchospasm** (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing).

BACK: **pain, back.**

EXTREMITIES: **angioedema** (large, hive-like swelling on hands, legs, feet); **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **edema, peripheral** (swelling of hands, ankles, feet, or lower legs); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving).

SLEEP: **somnolence** (sleepiness or unusual drowsiness).

CHILL: **chills.**

FEVER: **fever.**

PERSPIRATION: **sweating.**

SKIN: **pruritus** (itching skin); **rash.**

GENERALITIES: **allergic reaction** (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); **anemia** (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); **angioedema**; **arthralgia** (pain in joints; muscle pain or stiffness; difficulty in moving); **asthenia** (lack or loss of strength); **dehydration**; **hemorrhage while thrombocytopenic, resulting in death** (bleeding gums; coughing up blood; difficulty in breathing or swallowing; dizziness; headache; increased menstrual flow or vaginal bleeding; nosebleeds; paralysis; prolonged bleeding from cuts; red or dark brown urine; red or black, tarry stools; shortness of breath); **hypotension** (blurred vision; confusion; dizziness; faintness or lightheadedness when getting up from a lying or sitting

position; sudden sweating; unusual tiredness or weakness); **hypothyroidism** (constipation; depressed mood; dry skin and hair; feeling cold; hair loss; hoarseness or husky voice; muscle cramps and stiffness; slowed heartbeat; weight gain; unusual tiredness or weakness); **infection** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); **leukemia, secondary** (bone pain); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **myelodysplasia** (chest pain; chills; cough or hoarseness; fever; lower back or side pain; painful or difficult urination; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); **neutropenia** (chills; cough; fever; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands); **pain; thrombocytopenia** (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); **vasodilation** (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or light-headedness; sweating); **weight loss; hypersensitivity reactions.**

DIAGNOSTIC TESTS: **anemia; leukemia, secondary; neutropenia; thrombocytopenia.**

Tramadol (Systemic)

Commercial name(s): *Ultram.*

Category: Analgesic.

Conventional indications: Pain (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **agitation** (rebound effect?); **anxiety; depression** (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); **excitement, unusual feeling of** (rebound effect?); **nervousness** (rebound effect?); **restlessness; amnesia** (loss of memory); **attention, disturbance in; cognitive dysfunction** (trouble performing routine tasks); **confusion; euphoric mood** (false or unusual sense of well-being); **feeling jittery; hallucinations** (seeing, hearing, or feeling things that are not there); **irritability** (rebound effect?); **sedation** (drowsiness; sleepiness; relaxed and calm); **coma** (change in consciousness; loss of consciousness); **stupor** (decreased awareness or responsiveness; severe sleepiness).

VERTIGO: **dizziness; vertigo; fall; gait, abnormal** (change in walking and balance); **hypotension, orthostatic** (dizziness or lightheadedness when getting up from a lying or sitting position); **syncope** (fainting).

HEAD: **headache; migraine** (headache, severe and throbbing). (rebound effect?)

EYE: pupils, pinpoint.

VISION: **disturbances, visual** (blurred vision).

EAR: **infection, ear** (change in hearing; earache or pain in ear; ear drainage; fever).

NOSE: **congestion, nasal** (stuffy nose); **rhinorrhea** (runny nose); **congestion, sinus** (stuffy nose; headache); **nasopharyngitis** (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache); **sinusitis** (pain or tenderness around eyes and

cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); sneezing.

FACE: flushing (feeling of warmth; redness of the face).

MOUTH: dryness.

THROAT: nasopharyngitis (stuffy or runny nose; muscle aches; unusual tiredness or weakness; fever; sore throat; headache); soreness.

EXTERNAL THROAT: flushing (feeling of warmth; redness of the neck); pain, neck.

STOMACH: anorexia (loss of appetite); **dyspepsia** (heartburn); **nausea; pain; vomiting; appetite decreased; gastroenteritis, viral** (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness).

ABDOMEN: pain, abdominal (rebound effect?); appendicitis (stomach or lower abdominal pain; severe cramping; bloating; nausea; vomiting; fever); cholecystitis (indigestion; stomach pain; severe nausea; vomiting); cholelithiasis (abdominal fullness; gaseous abdominal pain; recurrent fever; yellow eyes or skin); flatulence (excessive gas); gastroenteritis, viral (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); pancreatitis (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: constipation; diarrhea (rebound effect).

BLADDER: dysuria (difficult or painful urination; burning while urinating); frequency, urinary (frequent urge to urinate); infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); micturition, difficulty in (trouble in holding or releasing urine; painful urination); retention, urinary (difficult urination).

KIDNEYS: infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

URINE: hematuria (blood in urine).

GENITALIA MALE: libido decreased (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection).

GENITALIA FEMALE: libido decreased (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse); menopausal symptoms (hot flashes).

RESPIRATION: bronchitis (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); dyspnea (shortness of breath); infection, upper respiratory tract (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); pneumonia (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing); depression, respiratory; breathing, slow or troubled.

COUGH: cough.

CHEST: flushing (feeling of warmth; redness of the upper chest); bronchitis (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); heart rate increased; infarction, myocardial (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); pain, chest; palpitations (irregular heartbeat); pneumonia (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing);

tachycardia (fast heartbeat); bradycardia (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); heartbeat, slow.

BACK: pain, back.

EXTREMITIES: **flushing** (feeling of warmth; redness of the arms); **spasticity**; arthralgia (pain in joints; muscle pain or stiffness; difficulty in moving); cramps, muscle; edema, lower limb (swelling of legs and feet); injury, muscle; ischemia, peripheral (itching of skin; numbness and tingling of face, fingers, or toes; pain in arms, legs, or lower back, especially pain in calves and/or heels upon exertion; pale, bluish-colored, or cold hands or feet; weak or absent pulses in legs); myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); osteoarthritis aggravated (difficulty in moving; muscle pain or stiffness; pain, swelling, or redness in joints); pain in limb; spasms, muscle; sprain, joint; stiffness, joint; swelling, joint; swelling, peripheral (swelling of hands, ankles, feet, or lower legs); tremor (trembling and shaking of hands or feet); twitching, muscle; flaccidity, skeletal muscle (no muscle tone).

SLEEP: **drowsiness**; **somnolence** (sleepiness or unusual drowsiness); sedation (drowsiness; sleepiness; relaxed and calm); sleep disorder (trouble in sleeping); yawning.

DREAMS: abnormal dreams.

CHILL: **rigors** (feeling unusually cold; shivering); shivering.

FEVER: feeling hot; pyrexia (fever).

PERSPIRATION: **sweating**; night sweats.

SKIN: **flushing** (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest); **pruritus** (itching of the skin); **rash**; allergic reaction (severe redness, swelling, and itching of the skin); cellulitis (itching, pain, redness, swelling, tenderness, warmth on skin); clamminess; dermatitis (blistering, crusting, irritation, itching, or reddening of skin; cracked, dry, scaly skin; swelling); piloerection (goosebumps); urticaria (redness, swelling, and itching of the skin); vesicles (blisters under the skin); cold, clammy skin.

GENERALITIES: **analgesia** (pain absence); **asthenia** (loss of strength or weakness); **flushing** (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest); **influenza-like illness** (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); **spasticity**; **stimulation, central nervous system (CNS)** (agitation; anxiety; nervousness; spasticity; unusual feeling of excitement); **weakness**; arthralgia (pain in joints; muscle pain or stiffness; difficulty in moving); blood pressure increased; contusion (pain; swelling; skin discoloration); cramps, muscle; feeling hot; heart rate increased; hypoesthesia (abnormal or decreased touch sensation); hypotension, orthostatic (dizziness or lightheadedness when getting up from a lying or sitting position); infarction, myocardial (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); infection, upper respiratory tract (ear congestion; nasal congestion; chills; cough, fever, sneezing, or sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); infection, viral (chills; cough or hoarseness; fever; cold flu-like symptoms); injury, muscle; ischemia, peripheral (itching of skin; numbness and tingling of face, fingers, or toes; pain in arms, legs, or lower back, especially pain in calves and/or heels upon exertion; pale,

bluish-colored, or cold hands or feet; weak or absent pulses in legs); malaise (general feeling of bodily discomfort); myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); osteoarthritis aggravated (difficulty in moving; muscle pain or stiffness; pain, swelling, or redness in joints); pain; palpitations (irregular heartbeat); paresthesia (numbness, tingling, pain, or weakness in hands or feet); seizures; sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); spasms, muscle; sprain, joint; stiffness, joint; swelling, joint; tachycardia (fast heartbeat); twitching, muscle; vasodilation (flushing or redness of the skin); weight increased or decreased; drug abuse; drug dependence; drug tolerance; bradycardia (chest pain or discomfort; lightheadedness; dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness); coma (change in consciousness; loss of consciousness); convulsions; death; flaccidity, skeletal muscle (no muscle tone); heartbeat, slow; seizures.

DIAGNOSTIC TESTS: hematuria.

Secondary Actions or Rebound Effects: drug withdrawal syndrome (abdominal pain; seizures; nervousness; shaking; nausea; vomiting; sweats); body aches; diarrhea; fever; irritability; nervousness; pupils, unusually large.

Tramadol and Acetaminophen (Systemic)

Commercial name(s): *Ultracet*.

Category: Analgesic.

Conventional indications: Acute pain (management).

Primary Actions or Pathogenetic Symptoms

MIND: anxiety (severe nervousness); confusion (mood or mental changes); euphoria (false or unusual sense of well-being); nervousness; amnesia (loss of memory; problems with memory); depersonalization (loss of sense of reality); depression (mood or mental changes); emotional lability (crying; depersonalization; dysphoria; euphoria; mental depression; paranoia; quick to react or overreact emotionally; rapidly changing moods); hallucinations (seeing, hearing, or feeling things that are not there); restlessness; stupor (decreased awareness or responsiveness); thinking, abnormal; lethargy [Tramadol].

VERTIGO: dizziness; syncope (high or low blood pressure; dizziness; light-headedness); vertigo (dizziness or light-headedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: headache; migraine headache; edema, cerebral [Acetaminophen].

VISION: vision, abnormal (change in vision).

HEARING: tinnitus (continuing ringing or buzzing or other unexplained noise in ears).

FACE: hot flashes (feeling of warmth; redness of the face).

MOUTH: dryness; edema, tongue.

THROAT: dysphagia (difficulty swallowing).

EXTERNAL THROAT: hot flashes (feeling of warmth; redness of the neck).

STOMACH: *anorexia* (loss of appetite; weight loss); *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort); *nausea*; *vomiting*; bleeding, gastrointestinal [Acetaminophen]; upset, gastrointestinal (diarrhea, loss of appetite, nausea or vomiting, stomach cramps or pain) [Acetaminophen].

ABDOMEN: *flatulence* (bloated full feeling; excess air or gas in stomach or intestines); *pain, abdominal*; *hepatic function, abnormal* (yellow eyes or skin); bleeding, gastrointestinal [Acetaminophen]; encephalopathy, hepatic [Acetaminophen]; liver damage [Acetaminophen]; upset, gastrointestinal (diarrhea, loss of appetite, nausea or vomiting, stomach cramps or pain) [Acetaminophen].

RECTUM: *constipation*; *diarrhea* (increase in bowel movements; loose stools; soft stools); bleeding, gastrointestinal [Acetaminophen].

STOOL: *melena* (bloody or black, tarry stools).

BLADDER: *micturition disorder* (trouble in holding or releasing urine; painful urination); *oliguria* (decrease in amount of urine); *retention, urinary* (decrease in urine volume; decrease in frequency of urination; difficulty in passing urine [dribbling]; painful urination).

PROSTATE GLAND: *prostatic disorder* (painful or difficult urination).

URINE: *albuminuria*.

GENITALIA MALE: *impotence* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection).

RESPIRATION: *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); *respiratory symptoms, upper* (fever; runny nose or sneezing); depression, respiratory.

CHEST: *hot flashes* (feeling of warmth; redness of the upper chest); *pain, chest*; *palpitation* (fast, irregular, pounding, or racing heartbeat or pulse); *tachycardia* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); arrest, cardiac [Tramadol]; arrhythmias, cardiac [Acetaminophen].

EXTREMITIES: *hot flashes* (feeling of warmth; redness of the arms); *tremor* (aches, pains or weakness of muscles; numbness or tingling of hands, legs, and feet); *ataxia* (shakiness and unsteady walk; clumsiness, unsteadiness, trembling, or other problems with muscle control or coordination); *hypertonia* (increased muscle tone); *muscle contractions, involuntary*.

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep) (rebound effect?); *somnolence* (sleepiness or unusual drowsiness).

DREAMS: *paroniria* (terrifying dreams causing sleep disturbances).

CHILL: *rigors* (feeling unusually cold; shivering).

PERSPIRATION: *sweating, increased*.

SKIN: *pruritus* (itching skin); *rash*; *piloerection* (goosebumps).

GENERALITIES: *analgesia* (pain absence); *asthenia* (loss of strength or energy; muscle pain or weakness); *fatigue* (unusual tiredness or weakness); *hot flashes* (feeling of warmth; redness of the face, neck, arms, and occasionally the upper chest); *tremor* (aches, pains or weakness of muscles; numbness or tingling of hands, legs, and feet); *allergic reaction* (burning, itching, and redness of skin; vomiting); *anaphylactoid reactions* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in

chest; unusual tiredness or weakness; wheezing); *anemia* (unusual tiredness or weakness); *drug abuse and dependence*; *drug tolerance*; *hypertonia* (increased muscle tone); *hypertension* (blurred vision; dizziness; severe or continuing, dull headache; pounding in the ears; slow or fast heartbeat); *hypotension* (blurred vision; confusion; dizziness, faintness, or light-headedness when getting up from a lying or sitting position; sudden sweating; unusual tiredness or weakness); *muscle contractions, involuntary*; *palpitation* (fast, irregular, pounding, or racing heartbeat or pulse); *paresthesia* (tingling sensation on skin); *piloerection* (goosebumps); *respiratory symptoms, upper* (fever; runny nose or sneezing); *seizures* (muscle spasm or jerking of all extremities; sudden loss of consciousness); *tachycardia* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *weight decrease*; acidosis, metabolic [Acetaminophen]; coagulation defects [Acetaminophen]; coagulation, intravascular, disseminated [Acetaminophen]; collapse, cardiovascular [Acetaminophen]; coma; convulsions [Acetaminophen]; death [Tramadol]; depression, central nervous system [Tramadol]; encephalopathy, hepatic [Acetaminophen]; hypoglycemia [Acetaminophen]; seizures [Tramadol].

DIAGNOSTIC TESTS: *albuminuria*; acidosis, metabolic [Acetaminophen]; hypoglycemia [Acetaminophen]; liver function tests, abnormalities in.

Secondary Actions or Rebound Effects: *diarrhea*; *insomnia* (difficulty sleeping); *irritability*; *nervousness*; *pain*.

Trandolapril (Systemic)

Commercial name(s): *Mavik*.

Category: Antihypertensive; Vasodilator, congestive heart failure.

Conventional indications: Hypertension (treatment); Left ventricular dysfunction, post-myocardial infarction (treatment); Congestive heart failure, post-myocardial infarction (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*; *syncope* (fainting).

HEAD: *headache*.

FACE: *angioedema of the face, extremities, lips, tongue, glottis, and larynx* (sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet; hoarseness).

MOUTH: *angioedema of the face, extremities, lips, tongue, glottis, and larynx* (sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet; hoarseness).

STOMACH: *dyspepsia* (stomach discomfort, heartburn, belching).

ABDOMEN: *hepatotoxicity* (yellow eyes or skin; dark urine).

RECTUM: *diarrhea*.

LARYNX AND TRACHEA: *angioedema of the face, extremities, lips, tongue, glottis, and larynx* (sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet; hoarseness).

COUGH: *cough, dry, persistent*.

CHEST: *bradycardia* (fainting, increased dizziness, and slow heart rate).

EXTREMITIES: *myalgia* (muscle pain); *angioedema of the face, extremities, lips, tongue, glottis, and larynx* (sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet; hoarseness); *claudication, intermittent* (pain, tension, and weakness upon walking that subsides during periods of rest).

GENERALITIES: *hypotension* (dizziness, lightheadedness, or fainting); *vasodilation*; *asthenia* (weakness); *fatigue*; *myalgia* (muscle pain); *agranulocytosis* (fever; chills; sore throat); *angioedema*; *bradycardia* (fainting, increased dizziness, and slow heart rate); *claudication, intermittent* (pain, tension, and weakness upon walking that subsides during periods of rest); *hyperkalemia* (confusion; irregular heartbeat; nervousness; numbness or tingling in hands, feet, or lips; shortness of breath or difficult breathing; weakness or heaviness of legs); *neutropenia* (fever; chills; sore throat).

DIAGNOSTIC TESTS: *agranulocytosis*; *hyperkalemia*; *neutropenia*; *serum potassium levels elevated*.

Trandolapril and Verapamil (Systemic)

Commercial name(s): *Tarka*.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*.

FACE: *angioedema* (swelling of face, lips).

MOUTH: *angioedema* (swelling of mouth, tongue).

STOMACH: *nausea*.

ABDOMEN: *hepatotoxicity* (dark urine; fever; malaise; right upper quadrant pain; yellow eyes or skin); *hepatotoxicity, ACE inhibitor-associated* (syndrome of cholestatic jaundice, fulminant hepatic necrosis, and death).

RECTUM: *constipation*; *diarrhea*.

KIDNEYS: dysfunction, renal.

LARYNX AND TRACHEA: *angioedema* (swelling of larynx, glottis).

RESPIRATION: *bronchitis* (cough that produces mucus; shortness of breath; wheezing); *dyspnea* (difficulty in breathing).

COUGH: *cough, dry, persistent*.

CHEST: *arrest, sinus* (hypertrophic cardiomyopathy (HCM) patients) [Verapamil]; *block, atrioventricular (AV)* [Verapamil]; *bradycardia* (slow heartbeat); *bradycardia, sinus* (hypertrophic cardiomyopathy (HCM) patients) [Verapamil]; *bronchitis* (cough that produces mucus; shortness of breath; wheezing); *edema, pulmonary, with or without severe hypotension* (hypertrophic cardiomyopathy (HCM) patients) [Verapamil]; *pain, chest*; junctional rhythm with AV dissociation.

EXTREMITIES: *angioedema* (swelling of hands, or feet); *pain, extremity or joint*

SKIN: *pruritus* (itching).

GENERALITIES: *hypotension* (dizziness, lightheadedness or fainting); *fatigue*; *agranulocytosis* (chills; fever; sore throat); *angioedema* (sudden trouble in swallowing or

breathing; swelling of face, mouth, hands, or feet; hoarseness); *bradycardia* (slow heartbeat); *edema* (generalized swelling); *hepatotoxicity*, *ACE inhibitor-associated* (syndrome of cholestatic jaundice, fulminant hepatic necrosis, and death); *hyperkalemia* (confusion; irregular heartbeat; nervousness; numbness or tingling in hands, feet, or lips; shortness of breath or difficulty in breathing; weakness or heaviness of legs); *neutropenia* (chills; fever; sore throat); *pain, joint*; acidosis, metabolic; convulsions; hyperglycemia; hypoperfusion.

DIAGNOSTIC TESTS: *agranulocytosis*; *hyperkalemia*; *kininase II inhibition*; *neutropenia*; *PR interval, prolongation of the*; acidosis, metabolic; hyperglycemia.

Tranexamic Acid (Systemic)

Commercial name(s): *Cyklokapron*.

Category: Antifibrinolytic; Antihemorrhagic.

Conventional indications: Hemorrhage, following dental and oral surgery, in patients with hemophilia (prophylaxis and treatment); Hemorrhage, oral, in patients with hemophilia (treatment); Hemorrhage, postsurgical (treatment); Hemorrhage, hyperfibrinolysis-induced (treatment); Angioedema, hereditary (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *degeneration, retinal, focal areas of* (in cats, dogs, and rats) [oral or intravenous administration]; *retinal changes* (in cats and rabbits).

VISION: *blurred vision*; *changes in vision*.

STOMACH: *nausea*; *vomiting*.

RECTUM: *diarrhea*.

GENITALIA FEMALE: *menstrual discomfort, unusual* (clotting of menstrual fluid).

GENERALITIES: *coagulation*; *hypotension* (dizziness or lightheadedness; unusual tiredness or weakness); *thromboembolism* (pains in chest, groin, or legs [especially calves]; severe, sudden headache; sudden and unexplained shortness of breath, slurred speech, vision changes, and/or weakness or numbness in arm or leg; sudden loss of coordination).

Trastuzumab (Systemic)

Commercial name(s): *Herceptin*.

Category: Monoclonal antibody; antineoplastic.

Conventional indications: Carcinoma, breast (treatment); Breast cancer, adjuvant.

Primary Actions or Pathogenetic Symptoms

EYE: *angioedema* (large, hive-like swelling on eyelids).

NOSE: *rhinitis* (runny nose).

FACE: *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

STOMACH: *nausea*; *vomiting*; *appetite, loss of*.

RECTUM: diarrhea.

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: *bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); *dyspnea, paroxysmal nocturnal*; *insufficiency, pulmonary, and hypoxia, requiring supplemental oxygen or ventilatory support*; *respiratory distress syndrome, adult* (shortness of breath; tightness in chest; troubled breathing; wheezing); *wheezing* (difficulty in breathing or troubled breathing).

COUGH: *cough, increased.*

CHEST: *cardiotoxicity*; *congestive heart failure* (fast or irregular heartbeat; increased cough; shortness of breath; swelling of feet and lower legs); *bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *edema, noncardiogenic pulmonary* (chest pain; difficult, fast, noisy breathing, sometimes with wheezing; blue lips and fingernails; pale skin; increased sweating; coughing; shortness of breath); *effusions, pleural* (chest pain; shortness of breath); *failure, cardiac*; *gallop, S₃*; *infiltrates, pulmonary* (cough; chest pain; unusual tiredness or weakness); *insufficiency, pulmonary, and hypoxia, requiring supplemental oxygen or ventilatory support*; *thrombosis, mural.*

EXTREMITIES: *angioedema* (large, hive-like swelling on hands, legs, feet); *edema, peripheral.*

SLEEP: *insomnia* (trouble in sleeping).

FEVER: *neutropenia, febrile* (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness).

SKIN: *rash*; *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: **asthenia** (unusual weakness); **infection** (fever or chills; cough or hoarseness); **infusion reaction** (dizziness; fever or chills; headache; nausea or vomiting; shortness of breath; skin rash; weakness); **pain**; *paresthesia* (numbness or tingling of hands or feet); *anaphylaxis/allergic reaction* (chills; hives; fever; shortness of breath; tightness in chest; trouble in breathing; wheezing; skin rash); *anemia* (unusual tiredness or weakness); *angioedema*; *edema, peripheral*; *hypotension* (blurred vision; confusion; dizziness, faintness, or light-headedness when getting up from a lying or sitting position; sudden sweating; unusual tiredness or weakness); *leukopenia* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *neutropenia, febrile* (black, tarry stools; chills; cough; fever; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *respiratory distress syndrome, adult* (shortness of breath; tightness in chest; troubled breathing; wheezing).

DIAGNOSTIC TESTS: *anemia*; *ejection fraction, reduced*; *leukopenia*; *neutropenia, febrile.*

Travoprost (Ophthalmic)

Commercial name(s): *Travatan.*

Category: Antiglaucoma agent (ophthalmic); Antihypertensive, ocular.

Conventional indications: Glaucoma, open-angle (treatment); Hypertension, ocular (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; depression* (mood or mental changes).

HEAD: *headache.*

EYE: *hypotension; discomfort; hyperemia* (redness of eye); **pain; pruritus, eye** (itching eye); **sensation, foreign body** (feeling of having something in the eye); *blepharitis* (redness, swelling, and/or itching of eyelid); *cataract* (blindness; blurred vision; decreased vision); *conjunctivitis* (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing); *crusting, lid margin* (crusting in corner of eye); *discoloration, iris* (eye color changes); *dryness; hemorrhage, subconjunctival* (decreased vision or any change in vision); *keratitis* (irritation or inflammation of eye); *photophobia* (increased sensitivity of eyes to sunlight); *tearing; edema, macular; eyelashes gradually change* (increased length, thickness, pigmentation, and the number of lashes); *pigmentation of the periorbital tissue (eyelid), increased.*

VISION: **acuity, visual, decreased** (decreased vision); *blurred vision; vision, abnormal* (change in vision).

NOSE: *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

STOMACH: *disorder, gastrointestinal* (diarrhea; loss of appetite; nausea and vomiting; stomach cramps or pain); *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain).

ABDOMEN: *disorder, gastrointestinal* (diarrhea; loss of appetite; nausea and vomiting; stomach cramps or pain).

BLADDER: *incontinence, urinary* (loss of bladder control); *infection, urinary tract* (blood in urine; lower back pain; pain or burning while urinating).

KIDNEYS: *infection, urinary tract* (blood in urine; lower back pain; pain or burning while urinating).

PROSTATE GLAND: *prostate disorder* (pelvic pain).

RESPIRATION: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing).

CHEST: *angina pectoris* (chest pain; chest tightness; fast or irregular heartbeat; shortness of breath); *bradycardia* (slow or irregular heartbeat [less than 50 beats per minute]); *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing).

BACK: *pain, back.*

EXTREMITIES: *arthritis* (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving).

SKIN: *pigmented tissues, changes in.*

GENERALITIES: *arthritis* (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); *bradycardia* (slow or irregular heartbeat [less than 50 beats per

minute)]; cold syndrome (runny nose; sore throat); hypercholesterolemia (high cholesterol); hypertension (high blood pressure); hypotension (low blood pressure); infection (fever or chills); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

DIAGNOSTIC TESTS: hypercholesterolemia.

Trazodone (Systemic)

Commercial name(s): *Desyrel*.

Category: Antidepressant; Antineuralgic.

Conventional indications: Depression, mental (treatment); Pain, neurogenic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: confusion; excitement, unusual.

VERTIGO: dizziness; lightheadedness.

HEAD: headache.

VISION: blurred vision.

MOUTH: dryness; taste, unpleasant.

STOMACH: nausea; vomiting.

RECTUM: constipation; diarrhea.

GENITALIA MALE: priapism (prolonged, painful, inappropriate penile erection).

CHEST: heartbeat, fast or slow.

EXTREMITIES: aches or pains, muscle; tremors, muscle; coordination, muscle, loss of.

SLEEP: drowsiness.

SKIN: allergic reaction (skin rash).

GENERALITIES: aches or pains, muscle; hypotension (fainting); tremors, muscle; tiredness or weakness, unusual; heartbeat, fast or slow; coordination, muscle, loss of.

Treprostinil (Systemic)

Commercial name(s): *Remodulin*.

Category: Antihypertensive (pulmonary); Vasodilator.

Conventional indications: Hypertension, pulmonary arterial (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness; near-syncope.

HEAD: headache.

FACE: pain, jaw; flushing (feeling of warmth; redness of the face).

EXTERNAL THROAT: flushing (feeling of warmth; redness of the neck).

STOMACH: nausea; vomiting.

RECTUM: diarrhea.

CHEST: hypotension; flushing (feeling of warmth; redness of the upper chest).

EXTREMITIES: flushing (feeling of warmth; redness of the arms).

SKIN: **pruritus** (itching skin); **rash**; flushing (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest).

GENERALITIES: **vasodilation** (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; feeling faint, dizzy, or light-headedness); **edema** (swelling); **infusion site reaction- including erythema, induration or rash** (accumulation of blood at site of injection; dry, red, hot, or irritated skin; hardening of site of injection); **pain, infusion site**; **hypotension** (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position; sudden sweating; confusion; unusual tiredness or weakness); flushing (feeling of warmth; redness of the face, neck, arms and occasionally, upper chest).

Tretinoin (Systemic)

Commercial name(s): *Vesanoid*.

Category: Antineoplastic.

Conventional indications: Leukemia, acute promyelocytic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety; confusion; depression, mental;** agitation (anxiety and restlessness); agnosia; aphasia (problems with speech or speaking); coma (loss of consciousness); dementia (mood, mental, or personality changes); dysarthria (trouble in speaking; slurred speech; changes in patterns and rhythms of speech); disorientation; forgetfulness; hallucinations; lethargy; mood or other mental changes.

VERTIGO: **dizziness;** clumsiness when walking; lightheadedness; unsteadiness when walking.

HEAD: **alopecia** (hair loss; thinning of hair); **headache; hemorrhage, cerebral** (in patients with acute promyelocytic leukemia); edema, cerebellar (confusion; headache; nausea; vomiting); hypertension, intracranial (decrease in vision; double vision; headache; severe nausea; blurred vision; change in ability to see colors, especially blue or yellow; vomiting); pseudotumor cerebri (headache, severe; nausea and vomiting; papilledema; vision problems); stroke (difficulty in speaking, slow speech, or inability to speak; inability to move arms, legs, or facial muscles).

EYE: **ocular disorders and visual disturbances** (any change in vision).

VISION: **ocular disorders and visual disturbances** (any change in vision).

EAR: **earache; feeling of fullness in the ear.**

HEARING: hearing loss (rarely irreversible).

NOSE: **dryness; mucositis** (crusting, redness, pain, or sores in mouth or nose; cracked lips); **respiratory tract disorders** (coughing, sneezing, sore throat, stuffy or runny nose).

FACE: **edema** (swelling of face); cheilosis; flushing.

MOUTH: **dryness; mucositis** (crusting, redness, pain, or sores in mouth or nose; cracked lips); aphasia (problems with speech or speaking); dysarthria (trouble in speaking; slurred speech; changes in patterns and rhythms of speech).

THROAT: **respiratory tract disorders** (coughing, sneezing, sore throat, stuffy or runny nose).

STOMACH: appetite, loss of; dyspepsia (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); **hemorrhage, gastrointestinal** (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); **indigestion; nausea; vomiting; ulcer, gastrointestinal tract** (cramping or pain in stomach, severe; heartburn, indigestion, or nausea, severe and continuing).

ABDOMEN: distention, abdominal (swelling of abdomen); **hemorrhage, gastrointestinal** (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); **hepatosplenomegaly** (in patients with acute promyelocytic leukemia); ascites (stomach pain and bloating); hepatic disorder (yellow eyes or skin); pancreatitis (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); ulcer, gastrointestinal tract (cramping or pain in stomach, severe; heartburn, indigestion, or nausea, severe and continuing); pain, abdominal.

RECTUM: constipation; diarrhea; hemorrhage, gastrointestinal (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

BLADDER: dysuria (difficult or painful urination; burning while urinating); urination, difficult, painful or frequent.

KIDNEYS: insufficiency, renal (decreased urination; swelling of face, fingers, hands, feet, or lower legs); failure, renal, acute (decreased urination; swelling of face, hands, fingers, feet, or lower legs); necrosis, renal tubular.

PROSTATE GLAND: enlarged prostate (painful or difficult urination).

GENITALIA MALE: ulceration of the genitals (sores on genitals).

GENITALIA FEMALE: ulceration of the genitals (sores on genitals).

LARYNX AND TRACHEA: edema, laryngeal (shortness of breath or troubled breathing).

RESPIRATION: dyspnea (shortness of breath difficult or labored breathing tightness in chest wheezing); **pneumonia** (in patients with acute promyelocytic leukemia); **rales; respiratory tract disorders** (coughing, sneezing, sore throat, stuffy or runny nose); asthma, bronchial (shortness of breath, troubled breathing, tightness in chest, or wheezing); trouble breathing.

CHEST: arrhythmias, cardiac (irregular heartbeat); **pneumonia** (in patients with acute promyelocytic leukemia); **respiratory tract disorders** (coughing, sneezing, sore throat, stuffy or runny nose); arrest, cardiac (stopping of heart; no blood pressure or pulse; unconsciousness); asthma, bronchial (shortness of breath, troubled breathing, tightness in chest, or wheezing); cardiomyopathy, secondary (chest discomfort or pain; difficulty breathing; dizziness; faintness; fast irregular or pounding heartbeat; shortness of breath; swelling of feet or lower legs; troubled breathing; unusual tiredness or weakness); edema, pulmonary (chest pain; difficult, fast, noisy breathing, sometimes with wheezing; blue lips and fingernails; pale skin; increased sweating; coughing that sometimes produces a pink frothy sputum; shortness of breath; swelling in legs and ankles); failure, cardiac (chest pain; shortness of breath or troubled breathing); heart, enlarged; infarction, myocardial (feeling of heaviness in chest; pain in back, chest, or left arm; shortness of breath or troubled breathing); murmur, heart (irregular heartbeat); myocarditis (chest pain or

discomfort; fever and chills; fast heartbeat; trouble breathing); pericarditis; pulmonary disease (shortness of breath).

BACK: pain, flank (pain in lower back or side).

EXTREMITIES: **edema** (swelling of fingers, hands, feet, or lower legs); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **pain, muscle; phlebitis** (pain and swelling in foot or leg); clumsiness when walking; hypotaxia (confusion; dizziness; fast heartbeat; shortness of breath; weakness); inflammation, bone; myositis (muscle pain unusual tiredness or weakness); trembling, sometimes with a flapping movement; unsteadiness when walking; weakness in legs; ataxia.

SLEEP: **insomnia** (trouble sleeping); difficulty sleeping; drowsiness; somnolence (drowsiness, very severe and continuing).

CHILL: **shivering.**

FEVER: **fever**; hypothermia (clumsiness; confusion; drowsiness; low body temperature; muscle aches; muscle weakness; shivering; sleepiness; tiredness; weak or feeble pulse; weight gain).

PERSPIRATION: **sweating, increased.**

SKIN: **alopecia** (hair loss; thinning of hair); **dryness**; **flushing**; **pallor** (paleness of skin); **itching**; **pruritus** (itching skin); **rash**; cellulitis (swollen area that feels warm and tender); erythema nodosum (fever; pain in ankles or knees; painful, red lumps under the skin, mostly on the legs).

GENERALITIES: **alopecia** (hair loss; thinning of hair); **coagulation, disseminated intravascular** (in patients with acute promyelocytic leukemia); **feeling of discomfort or illness, general**; **hemorrhage** (in patients with acute promyelocytic leukemia); **hypertension** (increase in blood pressure); **hypotension** (decrease in blood pressure); **infections** (in patients with acute promyelocytic leukemia); **injection site reaction** (bleeding; blistering; burning; coldness; discoloration of skin; feeling of pressure; hives; infection; inflammation; itching; lumps; numbness; pain; rash; redness; scarring; soreness; stinging; swelling; tenderness; tingling; ulceration; or warmth at site); **lymph disorders** (in patients with acute promyelocytic leukemia); **malaise** (general feeling of discomfort or illness; unusual tiredness or weakness); **mucositis** (crusting, redness, pain, or sores in mouth or nose; cracked lips); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **pain, muscle; paresthesia** (burning, crawling, or tingling feeling in the skin); **respiratory tract disorders** (coughing, sneezing, sore throat, stuffy or runny nose); **retinoic acid-acute promyelocytic leukemia (RA-APL) syndrome** (bone pain; discomfort or pain in chest; fever; shortness of breath, troubled breathing, tightness in chest, or wheezing; weight gain; radiographic pulmonary infiltrates and pleural and/or pericardial effusions); **retinoid effects** (dryness of skin, mouth, or nose; hair loss; headache; itching of skin; nausea and vomiting); **weight loss**; acidosis (drowsiness; fatigue; headache; nausea; troubled breathing; vomiting); coma (loss of consciousness); convulsions; depression, CNS (confusion; difficulty sleeping; disorientation; dizziness; drowsiness; coma; hallucination; headache; lethargy; lightheadedness; mood or other mental changes; trouble breathing; unusual tiredness or weakness); encephalopathy (agitation; back pain; blurred vision; coma; confusion; dizziness; drowsiness; fever; hallucinations; headache; irritability; mood or mental changes; seizures; stiff neck; unusual tiredness or weakness; vomiting); fluid imbalance; hemiplegia

(inability to move legs or arms; paralysis of one side of the body); *hepatitis* (yellow eyes or skin); *hypothermia* (clumsiness; confusion; drowsiness; low body temperature; muscle aches; muscle weakness; shivering; sleepiness; tiredness; weak or feeble pulse; weight gain); *infarction, myocardial* (feeling of heaviness in chest; pain in back, chest, or left arm; shortness of breath or troubled breathing); *inflammation, bone*; *ischemia* (chest pain or discomfort; irregular heartbeat; nausea or vomiting; pain in the shoulders, arms, jaw or neck; sweating); *myositis* (muscle pain unusual tiredness or weakness); *neurologic reaction* (confusion; fever; headache; seizures; excessive sleepiness; unusual irritability; vomiting); *organomegaly*; *Sweet's syndrome* (fever, sores on skin); *thrombosis, venous or arterial* (tenderness; pain; swelling; warmth; skin discoloration; and prominent superficial veins over affected area); *tiredness or weakness, unusual*; *trembling, sometimes with a flapping movement*; *vasculitis* (redness, soreness or itching skin; fever; sores, welting or blisters); *fatigue*.

DIAGNOSTIC TESTS: *acidosis*; *fluid imbalance*.

Tretinoin (Topical)

Commercial name(s): *Avita*; *Renova*; *Retin-A*; *Retin-A MICRO*; *Retisol-A*; *Stieva-A*; *Stieva-A Forte*; *Vitamin A Acid*; *Vitinoin*.

Category: Antiacne agent (topical) [Cream (oil-in-water); Gel; Solution]; Keratolytic (topical) [Cream (oil-in-water); Gel; Solution]; Hypopigmenting agent (topical) [Cream (water-in-oil)]; Photoaging mitigative agent (topical) [Cream (water-in-oil)].

Conventional indications: Acne vulgaris (treatment) [oil-in-water formulation, gel, and topical solution]; Hyperpigmentation, mottled, facial, due to photoaging (treatment adjunct), or Skin roughness, facial, due to photoaging (treatment adjunct), or Wrinkling, fine facial, due to photoaging (treatment adjunct) [water-in-oil formulation of tretinoin cream]; Keratosis follicularis (treatment), or Verruca plana (treatment) [oil-in-water cream, a gel, or a solution].

Primary Actions or Pathogenetic Symptoms

SKIN: *hypopigmentation of treated skin* (lightening of treated skin) [Cream (oil-in-water)]; *peeling* [Cream (oil-in-water); Gel; Solution]; **burning sensation of skin, mild to severe**; **dryness, unusual, mild to severe**; **erythema, mild to severe** (redness of skin, severe); **retinoid reaction** (erythema, stinging, or burning sensation of skin, and scaling of skin); **scaling of skin, mild to severe** (severe peeling of skin); **stinging sensation of skin, mild to severe**; **tingling of skin, mild**; *hyperpigmentation of treated skin* (darkening of treated skin).

Trientine (Systemic)

Commercial name(s): *Syprine*.

Category: Chelating agent.

Conventional indications: Wilson's disease (treatment).

Primary Actions or Pathogenetic Symptoms

RESPIRATION: *asthma* (in chemical workers after prolonged environmental exposure to trientine); *bronchitis* (in chemical workers after prolonged environmental exposure to trientine).

CHEST: *asthma* (in chemical workers after prolonged environmental exposure to trientine); *bronchitis* (in chemical workers after prolonged environmental exposure to trientine).

SKIN: *dermatitis* (in chemical workers after prolonged environmental exposure to trientine).

GENERALITIES: *anemia* (unusually pale skin; unusual tiredness); *hypersensitivity* (fever; general feeling of discomfort, illness, or weakness; joint pain; skin rash, blisters, hives, or itching; swelling of the lymph glands); *lupus erythematosus-like syndrome, systemic (SLE)* (fever; general feeling of discomfort, illness, or weakness; joint pain; skin rash, blisters, hives, or itching; swelling of the lymph glands).

DIAGNOSTIC TESTS: *anemia*.

Trifluridine (Ophthalmic)

Commercial name(s): *Viroptic*.

Category: Antiviral (ophthalmic).

Conventional indications: Keratitis, herpes simplex virus (treatment); Keratoconjunctivitis, herpes simplex virus (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *burning; stinging; edema, stromal* (irritation of eye); *hyperemia* (redness of eye); *keratitis sicca* (dryness of eye); *keratopathy, epithelial; keratopathy, superficial punctate* (blurred vision or other change in vision); *pressure, intraocular, increased*.

GENERALITIES: *hypersensitivity* (itching, redness, swelling, or other sign of irritation not present before therapy).

Trimethaphan (Systemic)

Commercial name(s): *Arfonad*.

Category: Antihypertensive.

Conventional indications: Hypotension, controlled (induction and maintenance); Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *hypotension, orthostatic*.

EYE: *cyclopegia* (paralysis of the ciliary muscle, resulting in a loss of visual accommodation); *mydriasis* (extensive pupils).

VISION: *cyclopegia* (paralysis of the ciliary muscle, resulting in a loss of visual accommodation).

MOUTH: *dryness*.

STOMACH: *anorexia; nausea; vomiting.*

ABDOMEN: *ileus, paralytic.*

RECTUM: *constipation.*

BLADDER: *retention, urinary, short-term.*

GENITALIA MALE: *impotence.*

RESPIRATION: *arrest, respiratory.*

CHEST: *angina, precipitation of; tachycardia.*

SKIN: *itching; urticaria.*

GENERALITIES: *hypotension; hypotension, orthostatic; parasympathetic blockade; tachycardia.*

Trimethobenzamide (Systemic)

Commercial name(s): *Benzacot; Stemetec; Tebamide; Tigan; Tribenzagan; Trimazide.*

Category: Antiemetic.

Conventional indications: Nausea and vomiting (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental.*

VERTIGO: *dizziness.*

HEAD: *headache.*

VISION: *blurred vision.*

ABDOMEN: *hepatic function impairment (yellow eyes or skin).*

RECTUM: *diarrhea.*

BACK: *opisthotonos (body spasm with head and heels bent backward and body bowed forward).*

EXTREMITIES: *cramps, muscle.*

SLEEP: *drowsiness.*

SKIN: *allergic reactions (skin rash).*

GENERALITIES: *cramps, muscle; blood dyscrasias (sore throat or fever; unusual tiredness); convulsions; Parkinson-like syndrome (shakiness or tremors); Reye's syndrome (convulsions; severe or continuing vomiting).*

Trimethoprim (Systemic)

Commercial name(s): *Proloprim; Trimplex.*

Category: Antibacterial (systemic).

Conventional indications: Urinary tract infections, bacterial (treatment); Urinary tract infections, bacterial (prophylaxis); Pneumonia, *Pneumocystis carinii* (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; depression, mental.*

VERTIGO: *dizziness.*

HEAD: *headache; meningitis, aseptic (headache; neck stiffness; malaise; nausea).*

MOUTH: *glossitis* (redness, swelling, or soreness of tongue).

STOMACH: *disturbances, gastrointestinal* (diarrhea; loss of appetite; nausea or vomiting; stomach cramps or pain); nausea; vomiting.

ABDOMEN: *disturbances, gastrointestinal* (diarrhea; loss of appetite; nausea or vomiting; stomach cramps or pain).

SKIN: *pruritus* (itching); *rash; dermatitis, exfoliative* (fever; general feeling of discomfort or illness; red, thickened, or scaly skin); *erythema multiforme* (fever; general feeling of discomfort or illness; red skin lesions, often with a purple center); *necrolysis, toxic epidermal [Lyell's syndrome]* (redness, tenderness, itching, burning, or peeling of skin; sore throat; fever with or without chills); *phototoxicity* (blisters; itching; rash; redness of skin; sensation of skin burning; swelling).

GENERALITIES: *anaphylaxis* (shortness of breath; swelling of face; changes in facial skin color); *anemia, megaloblastic* (unusual tiredness or weakness); *erythema multiforme* (fever; general feeling of discomfort or illness; red skin lesions, often with a purple center); *leukopenia* (chills, fever, or sore throat); *Lyell's syndrome* (redness, tenderness, itching, burning, or peeling of skin; sore throat; fever with or without chills); *methemoglobinemia* (bluish fingernails, lips, or skin; difficult breathing; pale skin; sore throat and fever; unusual bleeding or bruising; unusual tiredness or weakness); *neutropenia* (chills, fever, or sore throat); *Stevens-Johnson syndrome* (joint or muscle pain; blistering, peeling, or loosening of skin and mucous membranes; fever; general feeling of discomfort or illness); *thrombocytopenia* (rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); bone marrow depression (chills, fever, or sore throat; unusual tiredness or weakness; rarely, unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin).

DIAGNOSTIC TESTS: *anemia, megaloblastic; leukopenia; methemoglobinemia; thrombocytopenia*; bone marrow depression.

Trimetrexate (Systemic)

Commercial name(s): *Neutrexin*.

Category: Antiprotozoal; Antineoplastic.

Conventional indications: Pneumonia, *Pneumocystis carinii* (treatment); Carcinoma, colorectal (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion*.

MOUTH: *soreness; ulcers, mouth*.

STOMACH: *nausea; pain; vomiting*.

ABDOMEN: **hepatotoxicity** (abdominal pain or tenderness; clay colored stools; dark urine; decreased appetite; fever; headache; itching; loss of appetite; nausea and vomiting; skin rash; swelling of feet or lower legs; unusual tiredness or weakness; yellow eyes or skin).

FEVER: *fever*.

SKIN: *itching; rash*.

GENERALITIES: **anemia** (unusual tiredness or weakness); **neutropenia** (fever and sore throat); **thrombocytopenia** (black, tarry stools; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); *fatigue*; *anaphylactoid reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *hypersensitivity/allergic reaction* (fainting or loss of consciousness; fast or irregular breathing; swelling of eyes or eyelids; trouble in breathing; tightness in chest and/or wheezing; skin rash; itching); *hypocalcemia* (abdominal cramps; confusion; convulsions; difficulty in breathing; irregular heartbeats; mood or mental changes; muscle cramps in hands, arms, feet, legs, or face; numbness and tingling around the mouth, fingertips, or feet; shortness of breath; tremor); *hyponatremia* (coma; confusion; convulsions; decreased urine output; dizziness; fast or irregular heartbeat; headache; increased thirst; muscle pain); *seizures* (in AIDS patients).

DIAGNOSTIC TESTS: **anemia**; **neutropenia**; **thrombocytopenia**; *hypocalcemia*; *hyponatremia*.

Trioxsalen (Systemic)

Commercial name(s): *Trisoralen*.

Category: Repigmenting agent (systemic); Antipsoriatic (systemic).

Conventional indications: Vitiligo (treatment); Skin, increased tolerance to sunlight; Skin pigmentation, enhancement of; Psoriasis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression, mental*; *nervousness*.

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *cataracts*.

STOMACH: *nausea*.

EXTREMITIES: swelling, especially of feet or lower legs.

SLEEP: *trouble in sleeping*.

SKIN: *hyperpigmentation* (skin discoloration, dark); **itching**; *cancer, skin, increased risk of*; blistering and peeling; reddened, sore skin.

GENERALITIES: *cancer, skin, increased risk of*; swelling.

Triptorelin (Systemic)

Commercial name(s): *Trelstar Depot*.

Category: Antineoplastic.

Conventional indications: Carcinoma, prostate (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *emotional lability* (crying; mental depression; paranoia; quick to react or overreact emotionally; rapidly changing moods).

VERTIGO: *dizziness.*

HEAD: *headache.*

FACE: *hot flushes* (feeling of warmth redness of the face).

EXTERNAL THROAT: *hot flushes* (feeling of warmth redness of the neck).

STOMACH: *vomiting.*

RECTUM: *diarrhea.*

BLADDER: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *retention, urinary* (decrease in urine volume; decrease in frequency of urination; difficulty in passing urine [dribbling]; painful urination); *obstruction, bladder outlet.*

KIDNEYS: *infection, urinary tract* (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); *impairment, renal.*

URETHRA: *obstruction, urethral outlet.*

URINE: *hematuria.*

GENITALIA MALE: *impotence* (loss in sexual ability, desire, drive, or performance; decreased interest in sexual intercourse; inability to have or keep an erection).

CHEST: *hot flushes* (feeling of warmth redness of the upper chest).

BACK: *compression, spinal cord.*

EXTREMITIES: *hot flushes* (feeling of warmth redness of the arms); **pain, skeletal;** *pain, leg; pain, bone.*

SLEEP: *insomnia* (trouble sleeping or getting to sleep).

SKIN: *hot flushes* (feeling of warmth redness of the face, neck, arms and occasionally, upper chest; sudden sweating); *pruritus* (itching).

GENERALITIES: **pain, skeletal;** *anemia* (pale skin; troubled breathing, exertional; unusual bleeding or bruising; unusual tiredness or weakness); *fatigue* (unusual tiredness or weakness); *hypertension* (high blood pressure); *pain, injection site; angioedema; anaphylactic shock; neuropathy; pain, bone.*

DIAGNOSTIC TESTS: *anemia; hematuria; testosterone levels, transient increases in.*

Tropicamide (Ophthalmic)

Commercial name(s): *I-Picamide; Minims Tropicamide; Mydriacyl; Mydriafair; Ocu-Tropic; Opticyl; Spectro-Cyl; Tropicacyl.*

Category: Diagnostic aid (cycloplegic; mydriatic); Cycloplegic; Mydriatic.

Conventional indications: Mydriasis, in diagnostic procedures; Refraction, cycloplegic; Mydriasis, preoperative; Mydriasis, postoperative.

Primary Actions or Pathogenetic Symptoms

MIND: *behavioral disturbances* (unusual behavior, especially in children); *clumsiness; confusion; hallucinations* (seeing, hearing, or feeling things that are not there); *psychotic reaction* (unusual behavior, especially in children); *speech, slurred.*

HEAD: *headache.*

EYE: *cyclopegia* (paralysis of the ciliary muscle, resulting in a loss of visual accommodation); *mydriasis* (extensive pupils); *sensitivity to light, increased*; *stinging of eyes when medication is applied*.

VISION: *cyclopegia* (paralysis of the ciliary muscle, resulting in a loss of visual accommodation); *blurred vision*.

FACE: *flushing*; *redness*.

MOUTH: *dryness*; *speech, slurred*.

STOMACH: *swollen stomach in infants*; *thirst, increased*.

CHEST: *heartbeat, fast*.

EXTREMITIES: *clumsiness*; *unsteadiness*.

SLEEP: *drowsiness, unusual*.

SKIN: *rash*.

GENERALITIES: *collapse, cardiorespiratory* (in children and some adults); *heartbeat, fast*; *tiredness or weakness, unusual*.

Trospium (Systemic)

Commercial name(s): *Sanctura*.

Category: Antispasmodic (urinary bladder).

Conventional indications: Bladder hyperactivity (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *delirium* (unusual excitement, nervousness, or restlessness; hallucinations; confusion as to time, place, or person; holding false beliefs that cannot be changed by fact); *hallucinations* (seeing, hearing, or feeling things that are not there); confusion.

VERTIGO: *syncope* (fainting); *dizziness*.

HEAD: *headache*.

EYE: *dryness*; mydriasis (bigger, dilated, or enlarged pupils [black part of eye]; increased sensitivity of eyes to light); pain, eye.

VISION: *blurred vision*; *vision, abnormal* (changes in vision).

NOSE: dryness.

FACE: flushing; redness.

MOUTH: **dryness**; *dysgeusia* (loss of taste; change in taste).

THROAT: *dryness*.

STOMACH: *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); *pain, upper abdominal* (upper stomach pain); *gastritis* (burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion); *vomiting*; nausea.

ABDOMEN: *flatulence* (bloated full feeling; excess air or gas in stomach or intestines; passing gas); *pain, upper abdominal* (upper stomach pain); *distension, abdominal* (swelling of abdominal or stomach area; full or bloated feeling or pressure in the stomach).

RECTUM: **constipation, new or aggravated** (difficulty having a bowel movement [stool]).

BLADDER: *retention, urinary* (trouble in urinating); urination, difficult.

RESPIRATION: troubled breathing.

CHEST: *pain, chest; palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); *tachycardia, supraventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); fast, heartbeat.

EXTREMITIES: *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness).

SLEEP: drowsiness.

SKIN: *dryness.*

GENERALITIES: *fatigue* (unusual tiredness or weakness); *anaphylactic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *hypertensive crisis* (severe chest pain; enlarged pupils; fast or slow heartbeat; severe headache; increased sensitivity of eyes to light; increased sweating, possibly with fever or cold; clammy skin; stiff or sore neck); *palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); *tachycardia, supraventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); anticholinergic effects, severe (blurred vision; dizziness; drowsiness; confusion, delirium, or hallucinations; nausea; vomiting; constipation; difficult urination; eye pain; dry eyes, mouth, nose, or throat; flushing or redness of face; troubled breathing; fast heartbeat); fast, heartbeat.

DIAGNOSTIC TESTS: *tachycardia, supraventricular.*

Trovafloxacin (Systemic)

Commercial name(s): *Trovan.*

Category: Antibacterial (systemic).

Conventional indications: Bronchitis, bacterial exacerbations (treatment); Cervicitis (treatment); Gonorrhea, endocervical (treatment); Gonorrhea, rectal, in females (treatment); Gonorrhea, urethral, uncomplicated (treatment); Gynecologic infections (treatment) [Alatrofloxacin]; Intra-abdominal infections (treatment) [Alatrofloxacin]; Pelvic inflammatory disease (treatment); Perioperative infections (prophylaxis) [Alatrofloxacin and trovafloxacin]; Pneumonia, community-acquired (treatment) [Alatrofloxacin and trovafloxacin]; Pneumonia, nosocomial (treatment) [Alatrofloxacin]; Prostatitis, bacterial, chronic (treatment); Sinusitis, acute (treatment); Skin and soft tissue infections (treatment); Urinary tract infections, bacterial (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; hallucinations; psychosis, acute* (confusion; hallucinations; restlessness; seizures; tremors); *restlessness.*

VERTIGO: dizziness; lightheadedness.

HEAD: headache.

STOMACH: nausea; vomiting.

ABDOMEN: *colitis, pseudomembranous* (abdominal or stomach cramps and pain, severe; abdominal tenderness; diarrhea, watery and severe, which may also be bloody; fever); *failure, liver; injury, liver; toxicity, liver* (abdominal pain, severe; dark urine; fatigue; loss of appetite; nausea or vomiting; yellow eyes or skin).

RECTUM: diarrhea, mild.

GENITALIA FEMALE: vaginitis (vaginal pain and discharge).

EXTREMITIES: *inflammation, tendon; pain, tendon; rupture, tendon* (pain in calves, radiating to heels; swelling of calves or lower legs); *tendinitis* (pain in calves, radiating to heels; swelling of calves or lower legs).

SKIN: *photosensitivity reaction* (increased sensitivity of skin to sunlight); *rash*.

GENERALITIES: *hypersensitivity reaction* (difficulty in breathing or swallowing; rapid heartbeat; shortness of breath; skin itching, rash, or redness; swelling of face, throat, or tongue); *inflammation, tendon; pain, tendon; phlebitis* (pain at site of injection); *rupture, tendon* (pain in calves, radiating to heels; swelling of calves or lower legs); *seizures; stimulation, CNS* (confusion; hallucinations; restlessness; seizures; tremors); *tendinitis* (pain in calves, radiating to heels; swelling of calves or lower legs); *tremors*.

Tuberculin, Purified Protein Derivative (Parenteral-Local)

Commercial name(s): *Aplisol; Aplitest; Tuberculin PPD TINE TEST; Tubersol*.

Category: Diagnostic aid (tuberculosis).

Conventional indications: Tuberculosis (diagnosis).

Primary Actions or Pathogenetic Symptoms

SKIN: *pruritus* (itching); *allergic reactions* (skin rash or itching).

GENERALITIES: *erythematous reaction* (redness at the site of injection); *granuloma* (sores at and around the site of injection); *pain; bleeding, transient, at the PPD tine puncture site; discomfort at the PPD tine puncture site; necrosis at the site of injection* (redness, blistering, peeling, or loosening of the skin); *ulceration at the site of injection* (redness, blistering, peeling, or loosening of the skin); *vesiculation at the site of injection* (redness, blistering, peeling, or loosening of the skin).

Typhoid Vaccine Inactivated (Parenteral-Systemic)

Other commonly used names: Typhoid vaccine.

Category: Immunizing agent (active).

Conventional indications: *Salmonella typhi* (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: headache.

ABDOMEN: liver damage.

CHEST: *pain, chest.*

EXTREMITIES: *pain, muscle; pain, joint.*

FEVER: *fever.*

GENERALITIES: *malaise* (general feeling of discomfort or illness); **pain at injection site; pain, muscle; redness at injection site; swelling at injection site; anaphylactic reaction** (difficulty in breathing or swallowing; hives; itching, especially of soles or palms; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *neurological problems; pain, joint.*

Typhoid Vaccine Live Oral (Systemic)

Commercial name(s): *Vivotif Berna.*

Category: Immunizing agent (active).

Conventional indications: *Salmonella typhi* infection (prophylaxis).

Primary Actions or Pathogenetic Symptoms

STOMACH: *cramps, abdominal* (stomach cramps or pain); *discomfort, abdominal* (stomach cramps or pain); *nausea; vomiting.*

ABDOMEN: *cramps, abdominal* (stomach cramps or pain); *discomfort, abdominal* (stomach cramps or pain).

RECTUM: *diarrhea.*

FEVER: *fever.*

SKIN: *rash; urticaria* (hives).

GENERALITIES: *anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of soles or palms; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; sudden and severe unusual tiredness or weakness).

Typhoid Vi Polysaccharide Vaccine (Systemic)

Commercial name(s): *Typhim Vi.*

Category: Immunizing agent (active).

Conventional indications: *Salmonella typhi* (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache.*

EXTREMITIES: *pain, muscle.*

FEVER: *fever.*

GENERALITIES: *malaise; pain at injection site; pain, muscle; redness at injection site; swelling at injection site; anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of soles or palms; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe).

Undecylenic Acid, Compound (Topical)

Commercial name(s): *Caldesene Medicated Powder; Cruex Aerosol Powder; Cruex Antifungal Cream; Cruex Antifungal Powder; Cruex Antifungal Spray Powder; Cruex Cream; Cruex Powder; Decylenes Powder; Desenex Aerosol Powder; Desenex Antifungal Cream; Desenex Antifungal Liquid; Desenex Antifungal Ointment; Desenex Antifungal Penetrating Foam; Desenex Antifungal Powder; Desenex Antifungal Spray Powder; Desenex Foam; Desenex Ointment; Desenex Powder; Desenex Solution; Gordocho Solution.*

Category: Antifungal (topical).

Conventional indications: Fungal skin infections (treatment).

Primary Actions or Pathogenetic Symptoms

SKIN: *hypersensitivity* (skin irritation not present before therapy).

Unoprostone (Ophthalmic)

Commercial name(s): *Rescula.*

Category: Antiglaucoma agent (ophthalmic); Antihypertensive, ocular.

Conventional indications: Glaucoma, open-angle (treatment); Hypertension, ocular (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *hypotension; burning; dryness; itching; lacrimation disorder* (abnormal tearing of eyes); *length of eyelashes, increased or decreased; sensation, foreign body* (feeling of having something in the eye); *stinging; blepharitis* (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing); *cataracts* (blurred vision or eye pain); *conjunctivitis* (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing); *discharge from eye; hemorrhage, ocular* (blood in whites of the eye); *hyperpigmentation of iris or eyelid; iritis* (sensitivity to light; tearing; throbbing pain); *keratitis* (irritation or inflammation of eye); *lesion, corneal* (eye irritation or redness); *number of eyelashes, increased; pain, eye; photophobia* (difficulty seeing at night ; increased sensitivity of eyes to sunlight); *atrophy, optic* (blindness; blurred vision ; decreased vision; eye pain); *deposits, corneal* (blurred vision); *edema, corneal* (blurred vision; decreased vision); *hemorrhage, retinal* (decreased vision or other changes in vision).

VISION: *diplopia* (double vision); **vision, abnormal;** *blindness, color.*

GENERALITIES: *flu-like syndrome* (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting).

Secondary Actions or Rebound Effects: *pressure, intraocular, acute elevated* (eye pain or blurred vision).

Urea (Parenteral-Local)

Commercial name(s): *Ureaphil*.

Category: Abortifacient.

Conventional indications: Abortion, elective.

Primary Actions or Pathogenetic Symptoms

HEAD: *headache*.

STOMACH: *nausea; vomiting*.

ABDOMEN: *pain in lower abdomen* (inadvertent intravascular, myometrial, or intraperitoneal administration).

RECTUM: *diarrhea*.

GENITALIA FEMALE: *abortion; bleeding, uterine, increase in; contraction, titanic, uterine; endometritis* (chills; shivering; fever; foul-smelling vaginal discharge; pain in lower abdomen); *hypertonicity with spasm, uterine; necrosis, myometrial* (inadvertent intravascular, myometrial, or intraperitoneal administration).

GENERALITIES: *weakness* (inadvertent intravascular, myometrial, or intraperitoneal administration); *coagulation, intravascular, disseminated* (intra-amniotic administration of hypertonic urea); *dehydration* (inadvertent intravascular, myometrial, or intraperitoneal administration); *electrolyte imbalance* (confusion; irregular heartbeat; muscle cramps or pain; numbness, tingling, pain, or weakness in hands or feet; unusual tiredness or weakness; weakness or heaviness of legs).

DIAGNOSTIC TESTS: *electrolyte imbalance*.

Urea (Systemic)

Commercial name(s): *Ureaphil*.

Category: Diuretic; Antiglaucoma agent (systemic).

Conventional indications: Edema, cerebral (treatment); Glaucoma, malignant (treatment); Glaucoma, secondary (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *confusion; nervousness*.

VERTIGO: *dizziness; faintness*.

HEAD: *headache; hemorrhage, subdural or subarachnoid, possible* (blurred vision; severe headache).

EYE: *hypotension; hemorrhage, intraocular* (in patients with absolute glaucoma) [rapid infusion].

VISION: *blurred vision*.

MOUTH: *dryness*.

STOMACH: *nausea; thirst, increased; vomiting*.

BLADDER: *frequent urination; diuresis, excessive* (long-term therapy).

URINE: *copious (increased) urine*.

CHEST: *heartbeat, fast*.

SLEEP: drowsiness.

FEVER: fever.

SKIN: blemishes, skin.

GENERALITIES: electrolyte imbalance (confusion; irregular heartbeat; muscle cramps or pain; numbness, tingling, pain, or weakness in hands or feet; seizures; trembling; unusual tiredness or weakness; weakness and heaviness of legs); extravasation (redness, swelling, or pain at injection site) [intravenous injection]; heartbeat, fast; phlebitis, chemical (redness, swelling, or pain at injection site) [intravenous injection]; thrombosis, chemical (redness, swelling, or pain at injection site) [intravenous injection]; bleeding, capillary, increased; hemolysis [rapid administration].

DIAGNOSTIC TESTS: electrolyte imbalance; hemolysis [rapid administration].

Urea C 14 (Systemic)

Commercial name(s): *Pytest*.

Category: Diagnostic aid (*Helicobacter pylori* infection).

Conventional indications: Ulcer, gastric, *Helicobacter pylori* -associated (diagnosis).

Primary Actions or Pathogenetic Symptoms

No side/adverse effects were reported in clinical trials with this agent. The estimated radiation dose equivalent from administration of a single 1-microcurie capsule of urea C 14 is about 0.3 mrem (milli-roentgen-equivalent-man). According to the Nuclear Regulatory Commission, any dose below 5 to 10 mrem is below regulatory concern.

Urofollitropin (Systemic)

Commercial name(s): *Fertinex; Fertinorm HP; Metrodin*.

Category: Gonadotropin; Infertility therapy adjunct.

Conventional indications: Infertility, female (treatment); Reproductive technologies, assisted.

Primary Actions or Pathogenetic Symptoms

STOMACH: nausea; vomiting.

RECTUM: diarrhea, mild.

GENITALIA FEMALE: **enlargement, ovarian, uncomplicated, mild to moderate** (mild bloating, abdominal or pelvic pain); cysts, ovarian (mild bloating, abdominal or pelvic pain); ovarian hyperstimulation syndrome, severe (severe abdominal or stomach pain; feeling of indigestion; moderate to severe bloating; decreased amount of urine; continuing or severe nausea, vomiting, or diarrhea; severe pelvic pain; rapid weight gain; swelling of lower legs; shortness of breath; increase in vascular permeability).

CHEST: tenderness, breast.

CHILL: chills and fever.

FEVER: fever and chills.

SKIN: hives; rash.

GENERALITIES: **pain at injection site; redness at injection site; swelling at injection site;** *ovarian hyperstimulation syndrome, severe* (severe abdominal or stomach pain; feeling of indigestion; moderate to severe bloating; decreased amount of urine; continuing or severe nausea, vomiting, or diarrhea; severe pelvic pain; rapid weight gain; swelling of lower legs; shortness of breath; increase in vascular permeability); *thromboembolism* (venous thrombophlebitis, pulmonary embolism, pulmonary infarction, atelectasis, acute respiratory distress syndrome, stroke, arterial occlusion and death).

Ursodiol (Systemic)

Commercial name(s): *Actigall; URSO; URSO 250; Ursofalk.*

Category: Anticholelithic.

Conventional indications: Gallstone disease (treatment); Gallstone formation (prophylaxis); Cirrhosis, biliary (treatment); Atresia, biliary (treatment); Cholangitis, sclerosing (treatment); Cirrhosis, alcoholic (treatment); Hepatic disease, cholestatic (treatment); Hepatic disease, cystic fibrosis-associated (treatment); Hepatitis, chronic (treatment); Transplant rejection, liver (prophylaxis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: alopecia (hair loss); headache.

THROAT: pharyngitis (body aches or pain, congestion, cough, dryness or soreness of throat, fever, hoarseness, runny nose, tender, swollen glands in neck, trouble in swallowing, voice changes).

STOMACH: dyspepsia (heartburn); nausea; vomiting; *ulcer, peptic* (black, tarry stools, blood in vomit, severe or continuing stomach pain).

ABDOMEN: cholecystitis (indigestion, stomach pain, severe nausea, vomiting); *liver damage, lithocholate-induced, increased.*

RECTUM: constipation; diarrhea.

BLADDER: infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

RESPIRATION: bronchitis (cough producing mucus, difficulty breathing, shortness of breath, tightness in chest, wheezing); infection, upper respiratory tract (ear congestion, nasal congestion, chills, cough, fever, sneezing, or sore throat, body aches or pain, headache, loss of voice, runny nose, unusual tiredness or weakness, difficulty in breathing).

COUGH: coughing.

CHEST: bronchitis (cough producing mucus, difficulty breathing, shortness of breath, tightness in chest, wheezing).

BACK: pain, back.

EXTREMITIES: arthritis (pain, swelling, or redness in joints, muscle pain or stiffness, difficulty in moving); pain, musculoskeletal (muscle or bone pain).

SKIN: alopecia (hair loss); *psoriasis, exacerbation of pre-existing; rash.*

GENERALITIES: **allergy** (dizziness, fast heartbeat, shortness of breath, skin rash or itching over the entire body, sweating, weakness, wheezing); **alopecia** (hair loss); **arthritis** (pain, swelling, or redness in joints, muscle pain or stiffness, difficulty in moving); **infection, upper respiratory tract** (ear congestion, nasal congestion, chills, cough, fever, sneezing, or sore throat, body aches or pain, headache, loss of voice, runny nose, unusual tiredness or weakness, difficulty in breathing); **influenza-like symptoms** (chills, cough, diarrhea, fever, general feeling of discomfort or illness, headache, joint pain, loss of appetite, muscle aches and pains, nausea, runny nose, shivering, sore throat, sweating, trouble sleeping, unusual tiredness or weakness, vomiting); **pain, musculoskeletal** (muscle or bone pain); leukopenia (black, tarry stools, chest pain, chills, cough, fever, painful or difficult urination, shortness of breath, sore throat, sores, ulcers, or white spots on lips or in mouth, swollen glands, unusual bleeding or bruising, unusual tiredness or weakness).

DIAGNOSTIC TESTS: leukopenia.

Vaccinia Immune Globulin Intravenous (Human) (Systemic)

Commercial name(s): *Vaccinia immune globulin intravenous (human)*.

Category: Immunizing agent (passive).

Conventional indications: Eczema vaccinatum (treatment); Vaccinia, progressive (treatment); Vaccinia, severe generalized (treatment); Vaccinia infection (treatment); Aberrant infections induced by vaccinia virus (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *coma* (change in consciousness; loss of consciousness); *consciousness, loss of*.

VERTIGO: *dizziness*.

HEAD: *headache; meningitis syndrome, aseptic* (fever; headache; nausea; stiff neck or back; vomiting).

EYE: *disorders, eye*.

FACE: *dry lip*.

STOMACH: *appetite decreased; nausea; vomiting; pain, abdominal* (stomach pain).

ABDOMEN: *hepatic dysfunction* (dark urine light-colored stools; loss of appetite; nausea and vomiting; unusual tiredness; yellow eyes or skin; fever with or without chills; stomach pain); *pain, abdominal* (stomach pain).

RESPIRATION: *apnea* (bluish lips or skin; not breathing); *bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *cyanosis* (bluish color of fingernails, lips, skin, palms, or nail beds); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); *hypoxemia* (bluish lips or skin); *respiratory distress syndrome, acute (ARDS)* (shortness of breath; tightness in chest; troubled breathing; wheezing).

CHEST: *arrest, cardiac* (stopping of heart; no blood pressure or pulse; unconsciousness); *bronchospasm* (cough; difficulty breathing; noisy breathing; shortness of breath; tightness in chest; wheezing); *edema, pulmonary* (chest pain; difficult, fast, noisy breathing, sometimes with wheezing; blue lips and fingernails; pale skin; increased sweating; coughing that sometimes produces a pink frothy sputum; shortness of breath; swelling in legs and ankles); *injury, lung, transfusion related* (shortness of breath; tightness in chest; troubled breathing; wheezing).

BACK: *pain, back*.

EXTREMITIES: *pain, muscle; tremor* (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet); *cyanosis* (bluish color of fingernails, lips, skin, palms, or nail beds).

CHILL: *feeling cold; rigors* (feeling unusually cold; shivering).

FEVER: *feeling hot; pyrexia* (fever).

PERSPIRATION: *sweating increased*.

SKIN: *pallor* (paleness of skin); *dermatitis, bullous* (skin blisters); *epidermolysis* (blistering, peeling, loosening of skin); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

GENERALITIES: *asthenia* (lack or loss of strength); **energy, increased; fatigue** (unusual tiredness or weakness); **feeling cold or hot; pain; paresthesia** (burning, crawling,

itching, numbness, prickling, “pins and needles”, or tingling feelings); *anemia*, *Coombs-positive hemolytic* (back, leg, or stomach pains; bleeding gums; chills; dark urine; difficulty breathing; fatigue; fever; general body swelling; headache; loss of appetite; nausea or vomiting; nosebleeds; pale skin; sore throat; yellowing of the eyes or skin); *collapse, vascular* (chest pain or discomfort; cold, clammy, pale skin; confusion; dizziness; irregular heartbeats; shortness of breath; slow heart rate; weakness); *coma* (change in consciousness; loss of consciousness); *cyanosis* (bluish color of fingernails, lips, skin, palms, or nail beds); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *hemolysis* (abdominal pain; back pain; dark urine; decreased urination; fever; tiredness; yellow eyes or skin); *hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position; suddenly sweating; unusual tiredness or weakness); *hypoxemia* (bluish lips or skin); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *meningitis syndrome, aseptic* (fever; headache; nausea; stiff neck or back; vomiting); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *respiratory distress syndrome, acute (ARDS)* (shortness of breath; tightness in chest; troubled breathing; wheezing); *seizures* (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *thromboembolism* (pain in chest, groin, or legs, especially the calves; difficulty breathing; severe, sudden headache; slurred speech; sudden, unexplained shortness of breath; sudden loss of coordination; sudden, severe weakness or numbness in arm or leg; vision changes)

DIAGNOSTIC TESTS: *hemolysis; hypoxemia; leukopenia; pancytopenia.*

Valacyclovir (Systemic)

Commercial name(s): *Valtrex.*

Category: Antiviral (systemic).

Conventional indications: Herpes genitalis, initial episode (treatment); Herpes genitalis, recurrent episodes (suppression); Herpes genitalis, recurrent episodes (treatment); Herpes zoster (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation* (anxiety; dry mouth; irritability; nervousness; restlessness); *behavior, aggressive* (changes in behavior, especially in interactions with other people); *confusion* (mood or mental changes); *consciousness, decreased* (reduced mental alertness) (in patients

with renal insufficiency); *hallucinations* (seeing, hearing, or feeling things that are not there); coma (loss of consciousness).

VERTIGO: *dizziness*.

HEAD: *headache*.

FACE: *edema, facial* (swelling or puffiness of face).

STOMACH: *nausea; disturbances, gastrointestinal* (constipation; diarrhea; loss of appetite; stomach pain; vomiting).

ABDOMEN: *disturbances, gastrointestinal* (constipation; diarrhea; loss of appetite; stomach pain; vomiting).

KIDNEYS: *insufficiency, renal* (lower back/side pain; decreased frequency/amount of urine); *serum creatinine, elevated, with subsequent renal failure* (lower back/side pain; decreased urine output; decreased frequency of urination).

GENITALIA FEMALE: *dysmenorrhea* (painful menstruation, including (abdominal cramps; diarrhea; nausea).

CHEST: *tachycardia* (fast, pounding, or irregular heartbeat; lightheadedness when getting up from a lying or sitting position).

EXTREMITIES: *arthralgia* (joint pain).

SKIN: *erythema multiforme* (redness of the skin); *photosensitivity* (redness of the skin); *rash* (redness of the skin).

GENERALITIES: *arthralgia* (joint pain); *fatigue* (unusual tiredness or weakness); *anaphylaxis* (fast heartbeat; swelling of face; wheezing; difficulty in breathing or swallowing; skin rash; itching); *anemia, aplastic* (chest pain; chills; cough; fever; headache; shortness of breath); *anemia, hemolytic, microangiopathic* (back, leg, or stomach pains; chills; difficulty breathing; swelling of face, hands, legs, or feet); *erythema multiforme* (redness of the skin); *hepatitis with liver function test abnormalities* (flu-like symptoms; unusual tiredness; yellow eyes or skin); *hypersensitivity reactions, acute* (fast heartbeat; swelling of face; wheezing; difficulty in breathing or swallowing; skin rash; itching); *hypertension* (high blood pressure); *tachycardia* (fast, pounding, or irregular heartbeat; lightheadedness when getting up from a lying or sitting position); *thrombocytopenia* (black, tarry stools; chest pain; chills; cough; fever); coma (loss of consciousness); seizures (convulsions).

DIAGNOSTIC TESTS: *anemia, aplastic; anemia, hemolytic, microangiopathic; hepatitis with liver function test abnormalities; serum creatinine, elevated, with subsequent renal failure; thrombocytopenia*.

Valdecoxib (Systemic)

Commercial name(s): *Bextra*.

Category: Antirheumatic (nonsteroidal anti-inflammatory); Antidysmenorrheal.

Conventional indications: Rheumatoid arthritis, adult (treatment); Osteoarthritis (treatment); Dysmenorrhea, primary (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: lethargy (unusual feeling or tiredness or weakness).

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *angioedema* (large, hive-like swelling on eyelids).

NOSE: *sinusitis* (stuffy or runny nose; headache).

FACE: *edema, peripheral* (bloating or swelling of face; rapid weight gain; tingling of the hands or feet); *angioedema* (large, hive-like swelling on face, lips).

MOUTH: *angioedema* (large, hive-like swelling on tongue).

THROAT: *angioedema* (large, hive-like swelling on throat).

STOMACH: *dyspepsia* (acid or sour stomach; belching; indigestion; heartburn); **nausea; pain, abdominal** (stomach pain); *bleeding, gastrointestinal* (bloody, black, or sticky stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds); *ulceration, gastrointestinal* (bloody, black, or sticky stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds); pain, epigastric (stomach pain); vomiting.

ABDOMEN: **pain, abdominal** (stomach pain); *bleeding, gastrointestinal* (bloody, black, or sticky stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds); *flatulence* (bloating in the abdomen; excess gas); *fullness, abdominal; hepatic reactions* (flu-like symptoms; nausea; unusual tiredness; yellow skin or eyes; jaundice, fatal fulminant hepatitis, liver necrosis and hepatic failure); *ulceration, gastrointestinal* (bloody, black, or sticky stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: **diarrhea;** *bleeding, gastrointestinal* (bloody, black, or sticky stools; severe stomach pain; vomiting of blood or material that looks like coffee grounds).

KIDNEYS: *toxicity, renal* (blood in urine; decreased or painful urination; swelling of feet or lower legs); failure, renal, acute (shortness of breath, troubled breathing, tightness in chest and/or wheezing; sudden decrease in amount of urine; swelling of face, fingers, and/or lower legs; continuing thirst; unusual tiredness or weakness; weight gain).

GENITALIA MALE: *angioedema* (large, hive-like swelling on sex organs).

GENITALIA FEMALE: *angioedema* (large, hive-like swelling on sex organs).

RESPIRATION: **infection, upper respiratory tract** (ear congestion; cough; fever; sore throat); depression, respiratory (difficulty breathing).

BACK: *pain, back*.

EXTREMITIES: *edema, peripheral* (bloating or swelling of arms, hands, lower legs; rapid weight gain; tingling of the hands or feet); *myalgia* (muscle pain); *angioedema* (large, hive-like swelling on hands, legs, feet).

SLEEP: drowsiness.

SKIN: *rash; dermatitis, exfoliative* (cracks in the skin; loss of heat from the body; red, swollen skin, scaly skin); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *necrosis, toxic epidermal* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness).

GENERALITIES: **infection, upper respiratory tract** (ear congestion; cough; fever; sore throat); *anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs; rapid weight gain; tingling of the hands or feet); *hypertension* (blurred vision; dizziness; nervousness; pounding in the ears); *influenza-like symptoms* (chills; fever; muscle aches and pains); *injury, accidental*; *myalgia* (muscle pain); *sinusitis* (stuffy or runny nose; headache); *anaphylactic reaction* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching, puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *angioedema*; *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness)

DIAGNOSTIC TESTS: *anemia*.

Valganciclovir (Systemic)

Commercial name(s): *Valcyte*.

Category: Antiviral (systemic).

Conventional indications: Cytomegalovirus retinitis (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation*; *confusion*; *hallucinations* (feeling, hearing, or seeing things that are not there); *psychosis* (confusion; delusions; hallucinations; illogical thinking).

HEAD: headache.

EYE: **detachment, retinal** (veil or curtain appearing across part of vision; seeing flashes or sparks of light; seeing floating spots before eyes).

STOMACH: **nausea; vomiting.**

ABDOMEN: **pain, abdominal;** liver function disorder.

RECTUM: **diarrhea.**

KIDNEYS: failure, renal, acute (decreased frequency or amount of urine; fast or slow heartbeat; loss of appetite; nausea; shortness of breath; unusual tiredness or weakness); toxicity, renal, increased (agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness).

URINE: hematuria (blood in the urine) (in patients with existing renal function impairment).

EXTREMITIES: **neuropathy, peripheral** (numbness, tingling, pain, or weakness of hands or feet).

SLEEP: insomnia (sleeplessness; trouble sleeping).

FEVER: pyrexia (fever).

GENERALITIES: anemia (pale skin; troubled breathing, exertional; unusual tiredness or weakness); **neutropenia** (chills; cough; fever; hoarseness; lower back or side pain; painful or difficult urination; sore throat; ulcers, sores, or white spots in mouth; unusual tiredness or weakness); **paresthesia** (tingling, burning, or prickly sensations); **thrombocytopenia** (black, tarry stools; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising); bleeding; bone marrow depression (fever; sore throat; unusual bleeding or bruising; unusual tiredness or weakness); hypersensitivity reaction (anaphylaxis; angioedema; asthma; dermatitis; rhinitis; urticaria); infection, local or systemic (chills; fever); pancytopenia (shortness of breath or troubled breathing; sores, ulcers, or white spots on lips or in mouth; tightness in chest and/or wheezing; unusual bleeding or bruising; unusual tiredness or weakness); seizures; sepsis (chills; fever); granulocytopenia (chills; cough; fever; hoarseness; lower back or side pain; painful or difficult urination; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual tiredness or weakness); hepatitis (anorexia; diarrhea ; nausea; vomiting); leukopenia (chills; cough; fever; hoarseness; lower back or side pain; painful or difficult urination ; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual tiredness or weakness); tremor, generalized (quivering; trembling).

DIAGNOSTIC TESTS: anemia ; neutropenia ; thrombocytopenia; bone marrow depression; pancytopenia; creatinine concentrations, elevated; granulocytopenia; hematuria; leukopenia.

Valproic Acid (Systemic)

Commercial name(s): *Alti-Valproic; Depacon; Depakene; Depakote; Depakote Sprinkle; Deproic; Dom-Valproic; Epival; Med Valproic; Novo-Valproic; Nu-Valproic; PMS-Valproic Acid; Penta-Valproic; pms-Valproic Acid; pms-Valproic Acid E.C.*

Category: Anticonvulsant; Antimanic; Migraine headache prophylactic.

Conventional indications: Epilepsy, absence seizure pattern (treatment) [Valproic acid, divalproex, and valproate sodium]; Epilepsy, mixed seizure pattern (treatment adjunct) [Valproic acid, divalproex, and valproate sodium]; Epilepsy, myoclonic seizure pattern (treatment) [Valproic acid, divalproex, and valproate sodium]; Epilepsy, simple partial seizure pattern (treatment), or Epilepsy, complex partial seizure pattern (treatment) [Valproic acid, divalproex, and valproate sodium]; Epilepsy, tonic-clonic seizure pattern (treatment) [Valproic acid, divalproex, and valproate sodium]; Bipolar disorder, manic episodes (treatment) [Divalproex]; Bipolar disorder (prophylaxis and treatment) [Valproic acid and divalproex]; Migraine headaches (prophylaxis) [Divalproex].

Primary Actions or Pathogenetic Symptoms

MIND: amnesia (loss of memory; problems with memory); **emotional lability** (crying; depersonalization; dysphoria; euphoria; mental depression; paranoia; quick to react or overreact emotionally; rapidly changing moods); **nervousness**; agitation (anxiety; nervousness; restlessness; irritability; dry mouth; shortness of breath; hyperventilation;

trouble sleeping; irregular heartbeats; shaking); anxiety; behavioral changes; catatonic reaction (decreased awareness or responsiveness; mimicry of speech or movements; mutism; negativism; peculiar postures or movements, mannerisms or grimacing; severe sleepiness); confusion; depression (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); dysarthria (trouble in speaking; slurred speech; changes in patterns and rhythms of speech); excitement, unusual; hallucinations (seeing, hearing, or feeling things that are not there); irritability, unusual; mood or mental changes; restlessness, unusual; speech disorder (difficulty in speaking); thinking abnormalities; lethargy.

VERTIGO: dizziness; gait, abnormal (change in walking and balance; clumsiness, or unsteadiness); hypotension, postural (chills; cold sweats; confusion; dizziness, faintness, or light-headedness when getting up from lying or sitting position); vertigo (dizziness or light-headedness; feeling of constant movement of self or surroundings, sensation of spinning).

HEAD: alopecia (hair loss, thinning of hair); **headache.**

EYE: conjunctivitis (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing); dryness; nystagmus (continuous, uncontrolled back-and-forth and/or rolling eye movements); pain, eye.

VISION: amblyopia (blurred vision; change in vision; impaired vision); diplopia (double vision); spots before eyes.

EAR: ear disorder; otitis media (earache, redness or swelling in ear); pain, ear.

HEARING: tinnitus (continuing ringing or buzzing or other unexplained noise in ears; hearing loss); deafness.

NOSE: epistaxis (bloody nose); rhinitis (stuffy nose; runny nose; sneezing); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

FACE: edema, peripheral (bloating or swelling of face; rapid weight gain; tingling of hands or feet; unusual weight gain or loss).

MOUTH: abscess, periodontal; dryness; dysarthria (trouble in speaking; slurred speech; changes in patterns and rhythms of speech); glossitis (redness, swelling, or soreness of tongue); speech disorder (difficulty in speaking); stomatitis (swelling or inflammation of the mouth); taste perversion (change in taste; bad, unusual or unpleasant (after)taste).

THROAT: pharyngitis (body aches or pain, congestion, cough, dryness or soreness of throat, fever, hoarseness, runny nose, tender, swollen glands in neck, trouble in swallowing, voice changes).

EXTERNAL THROAT: rigidity, neck (severe muscle stiffness); pain, neck.

STOMACH: anorexia (loss of appetite); **appetite, increase**; **cramps, mild**; **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset or pain); **indigestion**; **nausea**; **vomiting**; gastroenteritis (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); hematemesis (vomiting of blood or material that looks like coffee grounds).

ABDOMEN: **cramps, abdominal, mild**; flatulence (bloated full feeling; excess air or gas in stomach or intestines; passing gas); gastroenteritis (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); hepatotoxicity (increase in frequency of seizures; loss of appetite; continuing nausea or vomiting; swelling of face; tiredness and weakness; yellow eyes or skin); liver dysfunction; pancreatitis (severe abdominal or stomach cramps;

continuing nausea and vomiting); *failure, hepatic* [Valproic Acid, Divalproex]; *failure, hepatic* (resulting in the death of a newborn) (during pregnancy).

RECTUM: *diarrhea*; *constipation*; *incontinence, fecal* (loss of bowel control).

BLADDER: *cystitis* (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate); *dysuria* (difficult or painful urination; burning while urinating); *incontinence, urinary* (loss of bladder control).

GENTALIA FEMALE: *menstrual periods, change in*; *amenorrhea* (absent, missed, or irregular menstrual periods; stopping of menstrual bleeding); *dysmenorrhea* (pain; cramps; heavy bleeding); *hemorrhage, vaginal* (heavy, non menstrual vaginal bleeding); *metrorrhagia* (normal menstrual bleeding occurring earlier, possibly lasting longer than expected); *vaginitis*.

RESPIRATION: *bronchitis* (cough producing mucus, difficulty breathing, shortness of breath, tightness in chest, wheezing); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); *pneumonia*.

COUGH: *cough, increased*.

CHEST: *bronchitis* (cough producing mucus, difficulty breathing, shortness of breath, tightness in chest, wheezing); *pain, chest*; *palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); *pneumonia*; *tachycardia* (fast, pounding, or irregular heartbeat or pulse).

BACK: *pain, back*.

EXTREMITIES: *ataxia* (clumsiness or unsteadiness); *trembling of hands and arms*; *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *arthrosis* (degenerative disease of the joint); *cramps, leg*; *edema, peripheral* (bloating or swelling of arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); *hypertonia* (excessive muscle tone; muscle tension or tightness; muscle stiffness); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *myasthenia* (loss of strength or energy, muscle pain or weakness); *twitching*.

SLEEP: *insomnia* (sleeplessness; trouble sleeping; unable to sleep); *somnolence* (sleepiness or unusual drowsiness); *drowsiness*.

DREAMS: *dreams, abnormal*.

CHILL: *chills*.

FEVER: *fever*.

SKIN: *alopecia* (hair loss, thinning of hair); *rash*; *dryness*; *furunculosis* (multiple swollen and inflamed skin lesions); *petechia* (small red or purple spots on skin); *pruritus*.

GENERALITIES: *alopecia* (hair loss, thinning of hair); *asthenia* (lack or loss of strength); *flu syndrome*; *infection*; *weight loss or gain, unusual*; *arthralgia* (pain in joints; muscle pain or stiffness; difficulty in moving); *arthrosis* (degenerative disease of the joint); *catatonic reaction* (decreased awareness or responsiveness; mimicry of speech or movements; mutism; negativism; peculiar postures or movements, mannerisms or grimacing; severe sleepiness); *ecchymosis* (bruising large, flat, blue or purplish patches in the skin); *edema* (swelling); *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); *hyperammonemia* (increase in frequency of seizures; loss of appetite; continuing nausea or vomiting; swelling of face; tiredness and weakness; yellow eyes or skin);

hypertension (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); *hypertonia* (excessive muscle tone; muscle tension or tightness; muscle stiffness); *hypokinesia* (absence of or decrease in body movement); *hypotension* (blurred vision; confusion; dizziness, faintness, or light-headedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); *hypotension, postural* (chills; cold sweats; confusion; dizziness, faintness, or light-headedness when getting up from lying or sitting position); *lupus erythematosus, discoid* (coin-shaped lesions on skin; loss of hair); *malaise* (general feeling of discomfort or illness; unusual tiredness or weakness); *myalgia* (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); *myasthenia* (loss of strength or energy, muscle pain or weakness); *palpitations* (fast, irregular, pounding, or racing heartbeat or pulse); *pancreatitis* (severe abdominal or stomach cramps; continuing nausea and vomiting); *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); *platelet aggregation inhibition* (unusual bleeding or bruising); *reflexes increased*; *sinusitis* (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); *tardive dyskinesia* (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs); *thrombocytopenia* (unusual bleeding or bruising); *twitching*; *vasodilation* (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or light-headedness; sweating); *afibrinogenemia* (in an infant, after birth); *bruising*; *clotting abnormalities*; *congenital anomalies, compatible and incompatible with life* (craniofacial defects, cardiovascular malformations and anomalies involving various body systems); *encephalopathy, hemostasis* (stoppage of bleeding); *hyperammonemia* (in patients with urea cycle disorders; unexplained lethargy, vomiting, changes in mental status); *hemostasis* (stoppage of bleeding); *jaundice*; *neural tube defects in the fetus*; *Reye’s-like syndrome*; *seizure control, loss of*; *weakness*.

DIAGNOSTIC TESTS: *hyperammonemia*; *thrombocytopenia*; *afibrinogenemia* (in an infant, after birth); *hemostasis*.

Valrubicin (Mucosal-Local)

Commercial name(s): *Valstar*.

Category: Antineoplastic.

Conventional indications: Carcinoma, bladder (treatment) [Intravesical valrubicin].

Primary Actions or Pathogenetic Symptoms

MOUTH: *taste, loss of sense of*.

RECTUM: *tenesmus* (frequent urge to defecate).

BLADDER: **dysuria** (painful or difficult urination); **frequency, urinary** (frequent urination); **incontinence, urinary** (loss of bladder control); **irritable bladder symptoms, local**; **urgency, urinary** (strong urge to urinate); *burning sensation*; *nocturia* (unusual

nighttime urination); irritable bladder symptoms (painful or difficult urination; trouble in holding urine; unusually frequent urination).

URETHRA: *pain, urethral.*

URINE: **hematuria** (blood in urine); **red color in urine.**

SKIN: *pruritus* (itching).

GENERALITIES: leukopenia (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); myelosuppression; neutropenia (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination).

DIAGNOSTIC TESTS: **hematuria; red color in urine;** leukopenia; myelosuppression; neutropenia.

Valsartan (Systemic)

Commercial name(s): *Diovan.*

Category: Antihypertensive; Vasodilator, congestive heart failure.

Conventional indications: Heart failure (treatment); Hypertension (treatment); Left ventricular dysfunction, post-myocardial infarction (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness; hypotension, postural* (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position); *syncope* (fainting).

HEAD: *headache; alopecia* (hair loss; thinning of hair).

VISION: *blurred vision.*

FACE: *angioedema* (sudden trouble in swallowing or breathing; swelling of face; hoarseness).

MOUTH: *angioedema* (sudden trouble in swallowing or breathing; swelling of mouth; hoarseness).

STOMACH: *nausea.*

ABDOMEN: *pain, abdominal.*

RECTUM: *diarrhea.*

KIDNEYS: *impairment, renal* (lower back/side pain; decreased frequency/amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain troubled breathing; increased blood pressure).

RESPIRATION: *infection, upper respiratory tract* (cough; fever; sneezing; sore throat).

COUGH: *coughing.*

CHEST: *vasodilation*; bradycardia (slow heartbeat); tachycardia (fast heartbeat).

BACK: *pain, back.*

EXTREMITIES: *arthralgia* (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); *angioedema* (sudden trouble in swallowing or breathing; swelling of hands, or feet; hoarseness).

SKIN: *alopecia* (hair loss; thinning of hair).

GENERALITIES: *hypotension* (dizziness, lightheadedness, or fainting); *vasodilation*; *arthralgia* (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); *fatigue*; *hyperkalemia* (abdominal pain; confusion; irregular heartbeat; nausea or vomiting; nervousness; numbness or tingling in hands, feet, or lips; shortness of breath; difficult breathing; weakness or heaviness of legs); *hypotension, postural* (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position); *infection, upper respiratory tract* (cough; fever; sneezing; sore throat); *infection, viral*; *alopecia* (hair loss; thinning of hair); *angioedema* (sudden trouble in swallowing or breathing; swelling of face, mouth, hands, or feet; hoarseness); *hepatitis* (dark urine; general tiredness and weakness; light-colored stools; nausea and vomiting; upper right abdominal pain; yellow eyes and skin); *neutropenia* (chills; fever; sore throat); bradycardia (slow heartbeat); tachycardia (fast heartbeat).

DIAGNOSTIC TESTS: *hyperkalemia*; *neutropenia*.

Valsartan and Hydrochlorothiazide (Systemic)

Commercial name(s): *Diovan HCT*.

Category: Antihypertensive.

Conventional indications: Hypertension (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety*; *confusion*; *lethargy* (sluggishness); *restlessness*.

VERTIGO: *dizziness*.

HEAD: *headache*.

FACE: *flushing* (redness of face).

MOUTH: *dryness*.

THROAT: *pharyngitis* (sore throat; difficulty swallowing; fever; tender, swollen lymph nodes in the neck; red, raw throat).

EXTERNAL THROAT: *flushing* (redness of neck).

STOMACH: *nausea*; *thirst*; *vomiting*.

ABDOMEN: *pain, abdominal*; *pancreatitis* (bloating or pain of the stomach; fever; nausea; vomiting).

RECTUM: *diarrhea*.

BLADDER: *oliguria* (diminished urine output).

GENITALIA MALE: *impotence* (decreased sexual performance); *libido, decreased* (decreased sexual drive).

GENITALIA FEMALE: *libido, decreased* (decreased sexual drive).

COUGH: *cough*.

CHEST: *palpitations* (heartbeat sensations); *tachycardia* (fast heart rate); bradycardia (slow heart rate).

EXTREMITIES: *cramps, muscle*; *fatigue, muscular*; *gout* (sudden occurrence of joint pain, usually in the ankle, knee, or great toe; joint stiffness, or swelling); *pain, muscle*.

SLEEP: *drowsiness*.

PERSPIRATION: *sweating, increased*.

SKIN: *photosensitivity* (increased sensitivity to sunlight); *rash*.

GENERALITIES: *hypotension* (dizziness, lightheadedness, or syncope [fainting]); *fatigue*; *infection, viral* (cold or flu-like symptoms); *allergic reaction* (itching, pain, redness, or swelling of eye or eyelid; watering of eyes; troubled breathing or wheezing; severe skin rash or hives; flushing); *cramps, muscle*; *fatigue, muscular*; *fluid and electrolyte imbalance* (confusion; drowsiness; dryness of mouth; gastrointestinal effects such as nausea and vomiting; hypotension; lethargy; muscle cramps or pain; muscular fatigue; oliguria; restlessness; seizures; tachycardia; thirst; weakness); *gout* (sudden occurrence of joint pain, usually in the ankle, knee, or great toe; joint stiffness, or swelling); *jaundice* (yellow eyes or skin); *neutropenia* (chills; fever; sore throat); *pain, muscle*; *palpitations* (heartbeat sensations); *pancreatitis* (bloating or pain of the stomach; fever; nausea; vomiting); *seizures*; *tachycardia* (fast heart rate); *weakness*; bradycardia (slow heart rate); diuresis, excessive (electrolyte depletion, dehydration).

DIAGNOSTIC TESTS: *fluid and electrolyte imbalance*; *neutropenia*.

Vancomycin (Oral-Local)

Commercial name(s): *Vancocin*.

Category: Antibacterial (oral-local).

Conventional indications: Colitis, antibiotic-associated (treatment); Colitis, pseudomembranous (treatment); Diarrhea, antibiotic-associated (treatment); Enterocolitis, staphylococcal (treatment).

Primary Actions or Pathogenetic Symptoms

MOUTH: irritation [oral solution]; **taste, bitter or unpleasant.**

STOMACH: nausea; vomiting.

BLADDER: oliguria.

KIDNEYS: failure, renal, acute.

SKIN: *dermatitis, exfoliative* (scaling of skin); *rash*; *rash, macular* (redness or discoloration of skin); *urticaria* (hives).

GENERALITIES: *vasculitis* (welting of skin).

Vancomycin (Systemic)

Commercial name(s): *Vancocin*.

Category: Antibacterial (systemic).

Conventional indications: Bone and joint infections (treatment); Pneumonia (treatment); Septicemia, bacterial (treatment); Skin and soft tissue infections (treatment) [Intravenous vancomycin]; Endocarditis, bacterial (prophylaxis) [Intravenous vancomycin]; Endocarditis, bacterial (treatment) [Intravenous vancomycin].

Primary Actions or Pathogenetic Symptoms

EAR: *feeling of fullness in the ears*; *ototoxicity* (loss of hearing; ringing or buzzing or a feeling of fullness in the ears).

HEARING: *buzzing in the ears; hearing, loss of; ringing in the ears.*

STOMACH: *appetite, loss of; cramps, stomach, severe; nausea; pain, stomach, severe; thirst, increased; vomiting.*

ABDOMEN: *colitis, pseudomembranous* (abdominal or stomach cramps and pain, severe; abdominal tenderness; *cramps, abdominal, severe; pain, abdominal, severe; peritonitis, chemical* (abdominal pain and cramps; abdominal tenderness) [high doses by intraperitoneal administration]; *tenderness, abdominal.*

RECTUM: *diarrhea, watery and severe, which may also be bloody.*

BLADDER: *urination, change in frequency of; urine, change in amount of; oliguria.*

KIDNEYS: *nephrotoxicity* (change in frequency of urination or amount of urine; difficulty in breathing; drowsiness; increased thirst; loss of appetite; nausea or vomiting; weakness); failure, renal function, acute.

RESPIRATION: *breathing, difficulty in.*

CHILL: *chills.*

FEVER: *fever.*

SLEEP: *drowsiness.*

SKIN: *dermatosis, linear IgA bullous* (large blisters on arms, legs, hands, feet, or upper body); *rash.*

GENERALITIES: *neutropenia* (chills; coughing; difficulty in breathing; fever; sore throat); *“red man syndrome”* (chills or fever; fainting; fast heartbeat; hives; hypotension; itching of skin; nausea or vomiting; rash or redness of the face, base of neck, upper body, back, and arms); *hypotension; pain at the injection site; thrombocytopenia* (abnormal bleeding or bruising); *thrombophlebitis; weakness.*

DIAGNOSTIC TESTS: *neutropenia; thrombocytopenia.*

Vardenafil (Systemic)

Commercial name(s): *Levitra.*

Category: Impotence therapy agent (systemic).

Conventional indications: Erectile dysfunction (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness; hypotension, postural* (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position); *syncope* (fainting); *vertigo* (dizziness or lightheadedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: *headache.*

EYE: *conjunctivitis* (increased redness of the eye); *glaucoma* (blindness; blurred vision; decreased vision; eye pain; headache; nausea or vomiting; tearing); *pain, eye; photophobia* (blurred vision; change in color vision; difficulty seeing at night; increased sensitivity of eyes to sunlight); *watery eyes; neuropathy, optic, non-arteritic anterior ischemic (NAION)* (blindness; blurred vision; decreased vision); *occlusion, retinal vein* (blurred vision; change in vision).

VISION: abnormal vision; blurred vision; color vision, changes in; chromatopsia (changes in vision); dim vision; acuity, visual, reduced (decreased vision); visual field defect (blurred vision; decrease or change in vision).

HEARING: tinnitus (continuing ringing or buzzing or other unexplained noise in ears; hearing loss).

NOSE: rhinitis (stuffy nose; runny nose; sneezing); epistaxis (bloody nose); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

FACE: flushing (feeling of warmth; redness of the face); edema, face.

MOUTH: dryness.

THROAT: dysphagia (difficulty swallowing); esophagitis (difficulty in swallowing; pain or burning in throat; chest pain; heartburn; vomiting; sores, ulcers, or white spots on lips or tongue or inside the mouth); pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

EXTERNAL THROAT: flushing (feeling of warmth; redness of the neck); pain, neck.

STOMACH: dyspepsia (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort, upset, or pain); gastritis (burning feeling in chest or stomach; tenderness in stomach area; stomach upset; indigestion); nausea; reflux, gastroesophageal (heartburn; vomiting); vomiting.

ABDOMEN: pain, abdominal.

RECTUM: diarrhea.

GENITALIA MALE: erection, prolonged; ejaculation, abnormal; priapism (painful or prolonged erection of the penis).

RESPIRATION: dyspnea (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: flushing (feeling of warmth; redness of the upper chest); angina pectoris (arm, back or jaw pain; chest pain or discomfort; chest tightness or heaviness; fast or irregular heartbeat; shortness of breath; sweating; nausea); infarction, myocardial (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); ischemia, myocardial (chest pain or discomfort; nausea; pain or discomfort in arms, jaw, back or neck; shortness of breath; sweating; vomiting); pain, chest; palpitation (fast, irregular, pounding, or racing heartbeat or pulse); tachycardia (fast, pounding, or irregular heartbeat or pulse).

BACK: pain, back.

EXTREMITIES: flushing (feeling of warmth; redness of the arms); arthralgia (muscle or joint pain); hypertonia (excessive muscle tone; muscle tension or tightness; muscle stiffness); myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving).

SLEEP: insomnia (sleeplessness; trouble sleeping; unable to sleep); somnolence (sleepiness or unusual drowsiness).

PERSPIRATION: sweating.

SKIN: flushing (feeling of warmth; redness of the face, neck, arms and occasionally upper chest); photosensitivity reaction (burning reaction similar to those that follow prolonged

sun exposure; red skin rash, sometimes with small blisters; dizziness; nausea; vomiting); pruritus (itching skin); rash.

GENERALITIES: flushing (feeling of warmth; redness of the face, neck, arms and occasionally upper chest); anaphylactic reaction (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); arthralgia (muscle or joint pain); asthenia (lack or loss of strength); flu syndrome (chills; cough; diarrhea; fever; general feeling of discomfort or illness; headache; joint pain; loss of appetite; muscle aches and pains; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; unusual tiredness or weakness; vomiting); hypertension (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); hypertonia (excessive muscle tone; muscle tension or tightness; muscle stiffness); hypesthesia (decreased sensitivity to touch and pain); hypotension (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); hypotension, postural (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position); infarction, myocardial (chest pain or discomfort; pain or discomfort in arms, jaw, back or neck; shortness of breath; nausea; sweating; vomiting); myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); pain; palpitation (fast, irregular, pounding, or racing heartbeat or pulse); paresthesia (burning, crawling, itching, numbness, prickling, “pins and needles” , or tingling feelings); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); tachycardia (fast, pounding, or irregular heartbeat or pulse).

Varicella Virus Vaccine Live (Systemic)

Commercial name(s): *Varivax*.

Category: Immunizing agent (active).

Conventional indications: Varicella virus (prophylaxis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: accident, cerebrovascular (blurred vision; headache, sudden and severe; inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe); encephalitis (confusion; irritability; severe or continuing headache; stiff neck; vomiting).

FACE: palsy, Bell's (weakness of the muscles in your face).

THROAT: pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: nausea; vomiting.

ABDOMEN: pain, abdominal; herpes zoster (painful blisters on trunk of body).

RECTUM: *diarrhea*.

RESPIRATION: *respiratory illness* (common cold; congestion; cough; sore throat); *pneumonia/pneumonitis* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

CHEST: *herpes zoster* (painful blisters on trunk of body); *pneumonia/pneumonitis* (chest pain; cough; fever or chills; sneezing; shortness of breath; sore throat; troubled breathing; tightness in chest; wheezing).

BACK: *herpes zoster* (painful blisters on trunk of body); *myelitis, transverse* (back pain, sudden and severe; muscle weakness, sudden and progressing).

EXTREMITIES: *arthralgia* (joint pain); *ataxia* (shakiness and unsteady walk; unsteadiness, trembling, or other problems with muscle control or coordination); *myalgia* (muscle pain).

FEVER: fever of 37.7° C to over 39° C (102° F).

SKIN: *rash, varicella-like; cellulitis* (itching, pain, redness, swelling, tenderness; warmth on skin); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips unusual tiredness or weakness); *herpes zoster* (painful blisters on trunk of body); *impetigo* (red rash with watery, yellow-colored, or pus filled blisters; thick yellow to honey-colored crusts); *infections of skin, secondary bacterial; purpura, Henoch-Schonlein* (blood in urine; bloody or black, tarry stools; fever; large, flat, blue or purplish patches in the skin; painful knees and ankles; raised red swellings on the skin, the buttocks, legs or ankles; stomach pain).

GENERALITIES: pain at injection site; redness at injection site; soreness at injection site; *paresthesia* (burning, crawling, itching, numbness, prickling, “pins and needles” or tingling feelings); *respiratory illness* (common cold; congestion; cough; sore throat); *anaphylactic reaction* (difficulty in breathing or swallowing; hives; itching, especially of feet or hands; reddening of skin, especially around ears; swelling of eyes, face, or inside of nose; unusual tiredness or weakness, sudden and severe); *arthralgia* (joint pain); *accident, cerebrovascular* (blurred vision; headache, sudden and severe; inability to speak; seizures; slurred speech; temporary blindness; weakness in arm and/or leg on one side of the body, sudden and severe); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips unusual tiredness or weakness); *Guillain-Barre syndrome* (sudden numbness and weakness in the arms and legs; inability to move arms and legs); *infections of soft tissue, secondary bacterial; lymphadenopathy* (swelling of glands in neck); *myalgia* (muscle pain); *seizures, non-febrile* (convulsions; muscle spasm or jerking of all extremities; sudden loss of consciousness; loss of bladder control); *purpura, Henoch-Schonlein* (blood in urine; bloody or black, tarry stools; fever; large, flat, blue or purplish patches in the skin; painful knees and ankles; raised red swellings on the skin, the buttocks, legs or ankles; stomach pain); *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *thrombocytopenia* (black, tarry stools; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: *thrombocytopenia*.

Vascular Headache Suppressants, Ergot Derivative-containing (Systemic)

Commercial name(s): *Belcomp-PB; Cafergot; D.H.E.; D.H.E. 45; Ergocaff-PB; Ergodryl; Ergomar; Gravergol; Migergot; Migracet-PB; Wigraine.*

Category: Vascular headache suppressant [Dihydroergotamine; Ergotamine; Ergotamine and Caffeine; Ergotamine, Caffeine, and Belladonna Alkaloids; Ergotamine, Caffeine, Belladonna Alkaloids, and Pentobarbital; Ergotamine, Caffeine, and Cyclizine; Ergotamine, Caffeine, and Dimenhydrinate; Ergotamine, Caffeine, and Diphenhydramine]; Thrombosis prophylaxis adjunct [Dihydroergotamine]; Antihypotensive [Dihydroergotamine].

Conventional indications: Headache, vascular (treatment); Thrombosis, deep venous (prophylaxis adjunct), or Thromboembolism, pulmonary (prophylaxis adjunct) [Dihydroergotamine]; Hypotension, orthostatic (prophylaxis and treatment) [Dihydroergotamine].

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness; restlessness; thoughts, racing*; confusion, severe; consciousness, loss of; stupor.

VERTIGO: *dizziness; vertigo* (dizziness or lightheadedness; feeling of constant movement of self or surroundings, sensation of spinning).

HEAD: *ischemia, cerebral* (anxiety, confusion); *infarction, cerebral.*

EYE: *vasospasm, ocular* (changes in vision; miosis); papillitis, bilateral, with ring scotomata.

FACE: *edema, localized* (swelling of face).

MOUTH: *dryness.*

STOMACH: *nausea; vomiting*; appetite, loss of; pain.

ABDOMEN: *fibrosis, retroperitoneal* (fever, general feeling of illness, loss of appetite, lower abdominal pain, lower back pain, nausea, vomiting) [long-term use of ergotamine]; bloating.

RECTUM: *diarrhea*; ulcer, anal or rectal (abdominal pain, irregular bowel movements, rectal discomfort, difficulty in moving bowels).

RESPIRATION: *cyanosis* (bluish color of fingernails, lips, skin, palms, or nail beds); depression, respiratory (shortness of breath)

CHEST: *angina pectoris, coronary vasospasm-induced* (chest pain); *bradycardia* (chest pain or discomfort, lightheadedness, dizziness or fainting, shortness of breath, slow or irregular heartbeat, unusual tiredness); *distress and pain, precordial* (chest pain); *fibrosis, pleuropulmonary* (shortness of breath; chest pain or tightness) [long-term use of ergotamine]; *heartbeat, fast or slow; pulse, absence of or rapid, weak; tachycardia, transient* (fast, pounding, or irregular heartbeat or pulse); *thickening, fibrotic, of the aortic, mitral, tricuspid, and/or pulmonary valves* [long-term use of ergotamine]; *infarction, myocardial*; fibrosis, pleural (shortness of breath).

EXTREMITIES: *edema, localized* (swelling of fingers, feet, and/or lower legs); **vascular effects, peripheral, mild and lasting 1 hour or less** (cold fingers or toes, itching of skin,

numbness or tingling of fingers or toes, weakness in the legs occurring without other signs and symptoms of ischemia); cold extremities; cyanosis (bluish color of fingernails, lips, skin, palms, or nail beds); ischemia, peripheral; pain, muscle; claudication, intermittent; coldness of the digits; numbness, tingling, pain and cyanosis of the extremities associated with diminished or absent peripheral pulses; pallor of the digits.

SLEEP: drowsiness.

SKIN: *itching*.

GENERALITIES: ***hypertension*** (blurred vision, dizziness, nervousness, headache, pounding in the ears, slow or fast heartbeat); **CNS effects** (dizziness or drowsiness occurring without other signs and symptoms of overdose [especially with formulations containing Cyclizine, Dimenhydrinate, Diphenhydramine, or Pentobarbital]; rarely, nervousness, racing thoughts, and restlessness); **vascular effects, peripheral, mild and lasting 1 hour or less** (cold fingers or toes, itching of skin, numbness or tingling of fingers or toes, weakness in the legs occurring without other signs and symptoms of ischemia); blood pressure, increase or decrease in; bradycardia (chest pain or discomfort, lightheadedness, dizziness or fainting, shortness of breath, slow or irregular heartbeat, unusual tiredness); cyanosis (bluish color of fingernails, lips, skin, palms, or nail beds); gangrene (cold, pale or a bluish color skin of the fingers or toes; itching skin; numbness or tingling of the fingers or toes; pain in the fingers or toes); heartbeat, fast or slow; ischemia, cerebral (anxiety, confusion); ischemia, peripheral vasospasm-induced (itching of skin; numbness and tingling of fingers, toes, or face; pain in arms, legs, or lower back, especially pain in calves and/or heels upon exertion; pale, bluish-colored, or cold hands or feet; weak or absent pulses; weakness in legs); pulse, absence of, or rapid, weak; tachycardia, transient (fast, pounding, or irregular heartbeat or pulse); claudication, intermittent; ergotism (intense arterial vasoconstriction); infarction, myocardial; numbness; pain, muscle; paresthesias (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); convulsions; hypotension; paralysis, one-sided; shock; toxicity, CNS (convulsions; severe confusion, dizziness, or drowsiness; stupor; weakness; one-sided paralysis; loss of consciousness); thrombotic complications; weakness.

Secondary Actions or Rebound Effects: *headache*.

Vasopressin (Systemic)

Commercial name(s): *Pitressin; Pressyn*.

Category: Pituitary (posterior) hormone; Antidiuretic (central diabetes insipidus); Diagnostic aid (diabetes insipidus).

Conventional indications: Diabetes insipidus, central (treatment); Diabetes insipidus (diagnosis).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness; lightheadedness.

HEAD: “pounding” in head.

FACE: white-colored area around mouth.

STOMACH: *belching; cramps; nausea; vomiting.*

ABDOMEN: *bowel movement, increased urge for; cramps, abdominal; gas, passage of; infarction and necrosis of the small bowel [Intra-arterial administration]; infarction, mesenteric [Intra-arterial administration].*

RECTUM: *diarrhea.*

CHEST: *angina (chest pain); arrhythmias, cardiac [large doses]; infarction, myocardial (chest pain); thrombosis, coronary [Intra-arterial administration].*

EXTREMITIES: *trembling; emboli, peripheral [Intra-arterial administration].*

PERSPIRATION: *sweating, increased.*

SKIN: *pale skin.*

GENERALITIES: *allergic reaction (fever; redness of skin; skin rash, hives, or itching; swelling of face, feet, hands, or mouth; wheezing or troubled breathing); arrhythmias, cardiac [large doses]; blood pressure, increases in [large doses]; gangrene, local [Intra-arterial administration]; thrombosis, venous [Intra-arterial administration]; water intoxication (hyponatremia) (coma; confusion; drowsiness; continuing headache; problems with urination; seizures; weight gain).*

DIAGNOSTIC TESTS: *water intoxication (hyponatremia) (coma; confusion; drowsiness; continuing headache; problems with urination; seizures; weight gain).*

Venlafaxine (Systemic)

Commercial name(s): *Effexor; Effexor XR.*

Category: Antidepressant; Antianxiety agent; Antipanic agent.

Conventional indications: Depressive disorder, major (treatment); Anxiety (treatment); Hot flashes (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *anxiety; nervousness; agitation; confusion; depersonalization; emotional lability; mood or mental changes; thinking, abnormal; catatonia (decreased awareness or responsiveness; mimicry of speech or movements; mutism; negativism; peculiar postures or movements, mannerisms or grimacing; severe sleepiness); delirium (unusual excitement, nervousness, or restlessness; hallucinations; confusion as to time, place, or person; holding false beliefs that cannot be changed by fact); lethargy (extreme tiredness or weakness); mania or hypomania (talking, feeling, and acting with excitement and activity one cannot control); panic.*

VERTIGO: *dizziness; hypotension, orthostatic (lightheadedness or fainting); vertigo (dizziness or lightheadedness; feeling of constant movement of self or surroundings, sensation of spinning).*

HEAD: *headache.*

EYE: *hemorrhage, eye (blood in eye; eye pain; redness in whites of eyes).*

VISION: *accommodation, abnormal; blurred vision.*

HEARING: *tinnitus (ringing or buzzing in ears).*

NOSE: *rhinitis (stuffy or runny nose).*

FACE: *trismus (lockjaw).*

MOUTH: dryness; *taste perversion* (change in sense of taste).

STOMACH: anorexia (loss of appetite); dyspepsia (heartburn); gas, stomach; nausea; pain; vomiting; hemorrhage, gastrointestinal (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

ABDOMEN: damage, liver (abdominal pain; bloating of abdomen; dark urine; light-colored stools; nausea and vomiting; yellow eyes or skin); failure, liver (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin); fatty liver (abdominal pain; bloating of abdomen; dark urine; light-colored stools; nausea and vomiting; yellow eyes or skin); hemorrhage, gastrointestinal (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds); necrosis, liver (abdominal or stomach pain; black, tarry stools; chills; light-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); pancreatitis (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin).

RECTUM: constipation; diarrhea (rebound effect); hemorrhage, gastrointestinal (black, tarry stools; bloody stools; vomiting of blood or material that looks like coffee grounds).

BLADDER: frequency, urinary; incontinence, urinary; retention, urinary (problems in urinating or in holding urine); urination, impaired.

KIDNEYS: failure, renal (lower back/side pain; decreased frequency/amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure).

GENITALIA MALE: anorgasmia; dysfunction, sexual; ejaculation, delayed; impotence (decrease in sexual drive or performance); libido, decreased.

GENITALIA FEMALE: anorgasmia; dysfunction, sexual; libido, decreased; menstrual changes.

RESPIRATION: dyspnea (trouble in breathing).

CHEST: pain, chest; palpitation (fast or irregular heartbeat); tachycardia (fast heartbeat); arrhythmias, cardiac (chest pain or discomfort; dizziness; fainting; fast, slow, or irregular heartbeat; lightheadedness; pounding or rapid pulse); fibrillation, atrial (fast or irregular heartbeat; dizziness; fainting); fibrillation, ventricular (fainting; fast, slow, or irregular heartbeat; shortness of breath; unusual tiredness or weakness); eosinophilia, pulmonary (chest pain; dry cough; fever; general feeling of tiredness or weakness; rapid breathing; shortness of breath; skin rash; wheezing); extrasystoles, ventricular (extra heart beats); QT prolongation (irregular heartbeat; recurrent fainting); tachycardia, supraventricular (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); tachycardia, ventricular (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); torsade de pointes (chest pain or discomfort; irregular or slow heart rate; fainting; shortness of breath); tachycardia, sinus (fast heartbeat).

EXTREMITIES: hypertonia (muscle tension); coordination impaired (difficulty with coordination); fasciculation (twitches of the muscle visible under the skin); movements, involuntary; rhabdomyolysis (dark-colored urine; fever; muscle cramps or spasms; muscle

pain or stiffness; unusual tiredness or weakness); *tremor* (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet).

SLEEP: **insomnia** (trouble in sleeping); **somnolence** (drowsiness) (rebound effect); **yawning**.

DREAMS: **dreams, abnormal**; *nightmares*.

CHILL: **chills**.

PERSPIRATION: **sweating, increased**; *night sweats*.

SKIN: *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red, irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *necrosis, epidermal* (blue-green to black skin; discoloration, pain, redness, or sloughing of skin at place of injection); *itching*; *rash*.

GENERALITIES: **asthenia** (unusual tiredness or weakness); **hypertension** (high blood pressure); **paresthesia** (tingling, burning, or prickly sensations); **tremor** (trembling or shaking); **weight loss**; *hypertonia* (muscle tension); *palpitation* (fast or irregular heartbeat); *tachycardia* (fast heartbeat); *agranulocytosis* (cough or hoarseness; fever with or without chills; general feeling of tiredness or weakness; lower back or side pain; painful or difficult urination; sore throat; sores, ulcers, or white spots on lips or in mouth; unusual bleeding or bruising); *anaphylaxis* (cough; difficulty swallowing; dizziness; fast heartbeat; hives; itching; puffiness or swelling of the eyelids or around the eyes, face, lips or tongue; shortness of breath; skin rash; tightness in chest; unusual tiredness or weakness; wheezing); *anemia, aplastic* (chest pain; chills; cough; fever; headache; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen or painful glands; tightness in chest; unusual bleeding or bruising; unusual tiredness or weakness; wheezing); *arrhythmias, cardiac* (chest pain or discomfort; dizziness; fainting; fast, slow, or irregular heartbeat; lightheadedness; pounding or rapid pulse); *catatonia* (decreased awareness or responsiveness; mimicry of speech or movements; mutism; negativism; peculiar postures or movements, mannerisms or grimacing; severe sleepiness); *congenital anomalies*; *coordination impaired* (difficulty with coordination); *dyskinesia* (twitching, twisting, uncontrolled repetitive movements of tongue, lips, face, arms, or legs); *edema* (swelling); *eosinophilia, pulmonary* (chest pain; dry cough; fever; general feeling of tiredness or weakness; rapid breathing; shortness of breath; skin rash; wheezing); *erythema multiforme* (blistering, peeling, loosening of skin; chills; cough; diarrhea; fever; itching; joint or muscle pain; red, irritated eyes; sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *fasciculation* (twitches of the muscle visible under the skin); *fatigue* (unusual tiredness or weakness); *fibrillation, atrial* (fast or irregular heartbeat; dizziness; fainting); *fibrillation, ventricular* (fainting; fast, slow, or irregular heartbeat; shortness of breath; unusual tiredness or weakness); *hemorrhage* (bleeding gums; coughing up blood; difficulty in breathing or swallowing; dizziness; headache; increased menstrual flow or vaginal bleeding; nosebleeds; paralysis; prolonged bleeding from cuts; red or dark brown urine; red or black, tarry stools; shortness of breath); *hypotension, orthostatic* (lightheadedness or fainting); *movements, involuntary*; *neuroleptic malignant syndrome-like events* (convulsions; difficulty in breathing; fast heartbeat; high fever; high or low blood pressure; increased sweating; loss of bladder control; severe muscle stiffness; unusually pale skin; tiredness); *neutropenia* (black, tarry stools; chills; cough; fever; lower

back or side pain; painful or difficult urination; pale skin; shortness of breath; sore throat; ulcers, sores, or white spots in mouth; unusual bleeding or bruising; unusual tiredness or weakness); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; fever; indigestion; loss of appetite; nausea; pains in stomach, side, or abdomen, possibly radiating to the back; vomiting; yellow eyes or skin); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); *seizures* (convulsions); *serotonin syndrome* (agitation; confusion; diarrhea; fever; hypomania; myoclonus; overactive reflexes; poor coordination; restlessness; shivering; sweating; talking or acting with excitement you cannot control; trembling or shaking; twitching;); *shock-like electrical sensations*; *Stevens-Johnson syndrome* (blistering, peeling, loosening of skin; chills; cough; diarrhea; itching; joint or muscle pain; red irritated eyes; red skin lesions, often with a purple center sore throat; sores, ulcers, or white spots in mouth or on lips; unusual tiredness or weakness); *syndrome of inappropriate antidiuretic hormone secretion* (agitation; coma; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness); *tachycardia, supraventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *tachycardia, ventricular* (fainting; fast, pounding, or irregular heartbeat or pulse; palpitations); *tardive dyskinesia* (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs); *thrombophlebitis, deep vein* (pain, redness, or swelling in arm or leg); tachycardia, sinus (fast heartbeat); *tremor* (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet).

DIAGNOSTIC TESTS: *anemia, aplastic; eosinophilia, pulmonary; fatty liver* (hepatic steatosis); *fibrillation, atrial; fibrillation, ventricular; neutropenia; pancytopenia; QT prolongation* (irregular heartbeat; recurrent fainting); *tachycardia, supraventricular; tachycardia, ventricular; torsade de pointes*.

Verteporfin (Parenteral-Local)

Commercial name(s): *Visudyne*.

Category: Macular degeneration therapy adjunct; Photosensitizer; Photodynamic therapy.

Conventional indications: Macular degeneration (treatment); Pathologic myopia (treatment); Ocular histoplasmosis, presumed (treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: vertigo (dizziness or light-headedness; feeling of constant movement of self or surroundings).

HEAD: headache.

EYE: cataracts (blurred vision; decrease in vision); conjunctivitis (itching, redness, or other irritation of eye); dryness; hemorrhage, eye (eye pain; decrease in vision); injection,

conjunctival (itching, redness, or other irritation of eye); lacrimation disorder (tearing); nonperfusion of normal retinal vessels.

VISION: **acuity, visual, decreased; blurred vision; visual field defects** (blurred vision or other change in vision); decrease in vision, severe; diplopia (double vision).

HEARING: hearing decreased.

THROAT: pharyngitis (throat congestion; hoarseness; tender, swollen glands in neck; trouble in swallowing; voice changes).

STOMACH: cancers, gastrointestinal; nausea.

ABDOMEN: cancers, gastrointestinal.

RECTUM: constipation.

PROSTATE GLAND: prostatic disorder (pelvic discomfort; difficult or painful urination).

URINE: albuminuria (cloudy urine).

RESPIRATION: pneumonia (chills; cough; diarrhea; fever; general feeling of discomfort or illness; joint pain; loss of appetite; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; vomiting).

CHEST: fibrillation, atrial (fast or irregular heartbeat; dizziness; fainting); pneumonia (chills; cough; diarrhea; fever; general feeling of discomfort or illness; joint pain; loss of appetite; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; vomiting).

BACK: pain, back.

EXTREMITIES: arthralgia (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); vascular disorder, peripheral.

SLEEP: disturbance, sleep (trouble in sleeping).

FEVER: fever.

SKIN: photosensitivity (increased sensitivity of eyes or skin to sunlight; redness or other discoloration of skin; severe sunburn); eczema (skin rash).

GENERALITIES: **injection site reaction** (bleeding; blistering; burning; coldness; discoloration of skin; feeling of pressure; infection; itching; numbness; pain; rash; redness; scarring; stinging; swelling; tenderness; tingling; ulceration; warmth); anemia (pale skin; troubled breathing, exertional; unusual bleeding or bruising; unusual tiredness or weakness); arthralgia (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); asthenia (loss of strength or energy); cancers, gastrointestinal; fibrillation, atrial (fast or irregular heartbeat; dizziness; fainting); flu-like syndrome (chills; cough; diarrhea; fever; general feeling of discomfort or illness; joint pain; loss of appetite; nausea; runny nose; shivering; sore throat; sweating; trouble sleeping; vomiting); hypertension (dull nervousness; pounding in the ears; slow or fast heartbeat); hypesthesia (decreased sensitivity to touch); varicose veins; vascular disorder, peripheral.

DIAGNOSTIC TESTS: albuminuria; anemia; fibrillation, atrial.

Vidarabine (Ophthalmic)

Commercial name(s): *Vira-A*.

Category: Antiviral (ophthalmic).

Conventional indications: Keratitis, herpes simplex virus (treatment); Keratoconjunctivitis, herpes simplex virus (treatment).

Primary Actions or Pathogenetic Symptoms

EYE: *feeling of something in the eye; hypersensitivity* (itching, redness, swelling, pain, burning, or other signs of irritation not present before therapy); *occlusion, lacrimal* (excess flow of tears); *sensitivity to light, increased; stenosis, lacrimal punctal* (excess flow of tears).

Vigabatrin (Systemic)

Commercial name(s): Sabril.

Category: Anticonvulsant.

Conventional indications: Epilepsy (treatment adjunct); Infantile spasms (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **agitation; amnesia; anxiety; confusion; depression; *aggression; concentration impaired; emotional lability; speech disorder; thinking, abnormal;*** behavior, abnormal; coma; consciousness, loss of; irritability; psychosis (mood or mental changes).

VERTIGO: **dizziness;** vertigo (dizziness or light-headedness; feeling of constant movement of self or surroundings; sensation of spinning).

HEAD: *headache.*

EYE: **atrophy, optic** (blindness; blurred vision; decreased vision; eye pain); **atrophy, retinal, peripheral** (decreased vision); **nystagmus** (uncontrolled back-and-forth and/or rolling eye movements); **pallor, bilateral optic disc** (decreased vision); *neuritis, optic* (blue-yellow color blindness).

VISION: **constriction, visual field** (decrease in vision or other change in vision); **diplopia** (double vision; seeing double).

MOUTH: *saliva, increased; speech disorder.*

STOMACH: *nausea; vomiting.*

ABDOMEN: **pain, abdominal.**

RECTUM: **constipation; diarrhea.**

BLADDER: *infection, urinary tract.*

KIDNEYS: *infection, urinary tract.*

RESPIRATION: apnea (bluish lips or skin; difficulty in breathing); depression, respiratory.

CHEST: bradycardia (slow or irregular heartbeat (less than 50 beats per minute); light-headedness; dizziness or fainting; unusual tiredness).

EXTREMITIES: **arthralgia** (joint pain); **ataxia** (shakiness and unsteady walk; clumsiness; unsteadiness; trembling; or other problems with muscle control or coordination); **coordination, abnormal; hypotonia** (muscle weakness).

SLEEP: **drowsiness; somnolence** (sleepiness or unusual drowsiness); *insomnia*

GENERALITIES: **arthralgia** (joint pain); **fatigue; hyperkinesia** (hyperactivity; increased movement); **paresthesia** (tingling; burning; prickly sensations); **seizures,**

increased; tremor; *hyporeflexia*; *hypotonia* (muscle weakness); *weight gain*; bradycardia (slow or irregular heartbeat (less than 50 beats per minute); light-headedness; dizziness or fainting; unusual tiredness); coma; hypotension (low blood pressure).

Vinblastine (Systemic)

Commercial name(s): *Velban*; *Velbe*.

Category: Antineoplastic.

Conventional indications: Carcinoma, breast (treatment); Tumors, trophoblastic, gestational (treatment); Carcinoma, testicular (treatment); Carcinoma, bladder (treatment); Carcinoma, lung, non-small cell (treatment); Carcinoma, renal (treatment); Lymphomas, Hodgkin's (treatment); Lymphomas, non-Hodgkin's (treatment); Sarcoma, Kaposi's (treatment); Histiocytosis X (treatment); Mycosis fungoides (treatment); Carcinoma, prostatic (treatment); Melanoma, malignant (treatment); Tumors, germ cell, ovarian (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: hair, loss of.

MOUTH: *stomatitis* (sores in mouth and on lips).

STOMACH: *nausea*; *vomiting*; *bleeding from a previously existing peptic ulcer* (black, tarry stools).

ABDOMEN: *colitis*, *hemorrhagic* (black, tarry stools).

RECTUM: *bleeding*, *rectal* (black, tarry stools).

KIDNEYS: *nephropathy*, *uric acid* (joint pain; lower back or side pain; swelling of feet or lower legs).

EXTREMITIES: *pain in bone*.

SKIN: hair, loss of; *cellulitis* (caused by extravasion; pain or redness at site of injection)

GENERALITIES: hair, loss of; **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *hyperuricemia* (joint pain; lower back or side pain; swelling of feet or lower legs); *pain in bone or tumor-containing tissues*; *thrombocytopenia*, *transient* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); *neurotoxicity* (difficulty in walking; dizziness; double vision; drooping eyelids; headache; jaw pain; mental depression; numbness or tingling in fingers and toes; pain in fingers and toes; pain in testicles; weakness).

DIAGNOSTIC TESTS: **leukopenia**; *hyperuricemia*.

Vincristine (Systemic)

Commercial name(s): *Oncovin*; *Vincasar PFS*.

Category: Antineoplastic.

Conventional indications: Leukemia, acute lymphocytic (treatment); Leukemia, chronic lymphocytic (treatment); Leukemia, chronic myelocytic (treatment); Neuroblastoma (treatment); Wilms' tumor (treatment); Carcinoma, breast (treatment); Carcinoma, lung, small cell (treatment); Carcinoma, ovarian, epithelial (treatment); Carcinoma, cervical

(treatment); Carcinoma, colorectal (treatment); Lymphomas, Hodgkin's (treatment); Lymphomas, non-Hodgkin's (treatment); Kaposi's sarcoma, acquired immunodeficiency syndrome (AIDS)-associated (treatment); Rhabdomyosarcoma (treatment); Ewing's sarcoma (treatment); Osteosarcoma (treatment); Hepatoblastoma (treatment); Retinoblastoma (treatment); Tumors, trophoblastic, gestational (treatment); Tumors, brain, primary (treatment); Melanoma, malignant (treatment); Multiple myeloma (treatment); Waldenström's macroglobulinemia (treatment); Tumors, germ cell, ovarian (treatment); Mycosis fungoides (treatment); Thrombocytopenic purpura, idiopathic (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: hair, loss of.

MOUTH: *stomatitis* (sores in mouth and lips).

STOMACH: *nausea*; *vomiting*.

ABDOMEN: *bloating*.

RECTUM: constipation, severe; *diarrhea*.

BLADDER: urination, decrease or increase in or painful or difficult.

KIDNEYS: nephropathy, uric acid (joint pain; lower back or side pain).

SKIN: hair, loss of; *cellulitis* (caused by extravasion; pain or redness at site of injection); *rash*.

GENERALITIES: hair, loss of; **hyperuricemia** (joint pain; lower back or side pain); **neurotoxicity, progressive** (blurred or double vision; difficulty in walking; drooping eyelids; headache; jaw pain; numbness or tingling in fingers and toes; pain in fingers and toes; pain in testicles; weakness); *weight, loss of*; *leukopenia* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination); *syndrome of inappropriate antidiuretic hormone (SIADH)*; *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin).

DIAGNOSTIC TESTS: **hyperuricemia**; *leukopenia*; *platelet count changes little and may actually increase*; *thrombocytopenia*.

Vindesine (Systemic)

Commercial name(s): *Eldisine*.

Category: Antineoplastic.

Conventional indications: Leukemia, acute lymphocytic (treatment); Carcinoma, lung, non-oat cell (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *alopecia* (hair loss; thinning of hair); *blindness, cortical*.

VISION: *blindness, cortical*.

STOMACH: *anorexia* (loss of appetite; weight loss); *nausea*; *vomiting*.

RECTUM: *constipation*; *diarrhea* (increase in bowel movements; loose stools; soft stools).

EXTREMITIES: *pain, musculoskeletal* (muscle or bone pain).

SKIN: *alopecia* (hair loss; thinning of hair); *rash*.

GENERALITIES: **leukopenia** (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands); alopecia (hair loss; thinning of hair); malaise (general feeling of discomfort or illness); neurotoxicity (blurred or double vision; convulsions; difficulty in walking; drooping eyelids; headache; jaw pain; numbness or tingling in fingers and toes; pain in fingers and toes; weakness); pain, musculoskeletal (muscle or bone pain); thrombocytopenia (shortness of breath; unusual bleeding or bruising; unusual tiredness or weakness); syndrome of inappropriate antidiuretic hormone (SIADH) (agitation; confusion; decreased urine output; depression; dizziness; headache; hostility; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness).

DIAGNOSTIC TESTS: **leukopenia**; thrombocytopenia.

Vinorelbine (Systemic)

Commercial name(s): *Navelbine*.

Category: Antineoplastic.

Conventional indications: Carcinoma, lung, non-small cell (treatment); Carcinoma, breast (treatment); Carcinoma, cervical (treatment); Carcinoma, ovarian, epithelial (treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: **alopecia** (loss of hair).

FACE: pain, jaw.

MOUTH: stomatitis (sores in mouth and on lips).

THROAT: esophagitis (chest pain; heartburn; vomiting).

STOMACH: **anorexia** (loss of appetite); **nausea**; **vomiting**.

ABDOMEN: pancreatitis (bloating; chills; constipation; darkened urine; fast heartbeat; indigestion; loss of appetite; nausea; pains in stomach; vomiting; yellow eyes or skin); ileus, paralytic (abdominal pain, mild; constipation; nausea; vomiting).

RECTUM: **constipation**; diarrhea.

BLADDER: cystitis, hemorrhagic (blood in urine; painful urination).

RESPIRATION: shortness of breath.

CHEST: pain, chest; pulmonary reactions (shortness of breath); infarction, myocardial, fatal (in a patient with a previous infarction).

EXTREMITIES: neuropathy, peripheral, mild to moderate, including paresthesia and hypesthesia (numbness or tingling in fingers and toes); pain, joint or muscle

SKIN: **alopecia** (loss of hair); rash

GENERALITIES: **alopecia** (loss of hair); **anemia** (unusual tiredness or weakness); **asthenia** (loss of strength and energy); **granulocytopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination; sore throat); **injection site reactions** (redness, increased warmth, pain, or discoloration of vein at place of injection; phlebitis); **leukopenia** (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination; sore throat); hypesthesia (numbness or tingling in fingers and toes); pain, joint or muscle; paresthesia (numbness or tingling in fingers and

toes); *infarction, myocardial, fatal* (in a patient with a previous infarction); *pancreatitis* (bloating; chills; constipation; darkened urine; fast heartbeat; indigestion; loss of appetite; nausea; pains in stomach; vomiting; yellow eyes or skin); *thrombocytopenia* (unusual bleeding or bruising; black, tarry stools; blood in urine or stools; pinpoint red spots on skin); bone marrow aplasia; bone marrow suppression (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination; sore throat; unusual bleeding or bruising; unusual tiredness or weakness); death; paresis; sepsis.

DIAGNOSTIC TESTS: **anemia; granulocytopenia; leukopenia;** *alkaline phosphatase values, elevations in; thrombocytopenia;* bone marrow suppression.

Vitamin A (Systemic)

Commercial name(s): *Aquasol A.*

Category: Nutritional supplement (vitamin).

Conventional indications: Vitamin A deficiency (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

MIND: confusion; excitement, unusual; irritability.

VERTIGO: dizziness.

HEAD: *pressure, intracranial, increased* (pseudotumor cerebri) (in older children and adults); bulging soft spot on head (in babies); hair, loss of; headache; hydrocephalus (in infants).

EYE: papilledema.

VISION: double vision.

FACE: cracking of lips; drying of lips; patches on skin around nose and lips, yellow-orange; peeling of lips.

MOUTH: dryness; bleeding from gums; soreness of mouth.

STOMACH: appetite, loss of; pain; vomiting.

ABDOMEN: hepatotoxicity.

RECTUM: diarrhea.

BLADDER: amount of urine, increase in; frequency of urination, increase in, especially at night.

GENITALIA FEMALE: hypomenorrhea.

EXTREMITIES: pain, bone or joint; patches on soles of feet, or palms of hands, yellow-orange; peeling of skin on palms.

SLEEP: drowsiness.

FEVER: fever.

SKIN: cracking of skin; drying of skin; hair, loss of; peeling of skin, especially on lips and palms; sensitivity to sunlight, increased.

GENERALITIES: anemia; death; feeling of discomfort or illness or weakness, general; fetotoxicity; hair, loss of; hemolysis; hypertension, portal; premature closure of epiphyses (in children) seizures; tiredness, unusual.

DIAGNOSTIC TESTS: anemia; bone changes, radiographic; hemolysis.

Vitamin B12 (Systemic)

Commercial name(s): *Alphamin; Anacobin; Bedoz; Cobex; Cobolin-M; Crystamine; Crysti-12; Cyanoject; Cyomin; Hydro-Cobex; Hydro-Crysti-12; Hydrobexan; Hydroxy-Cobal; LA-12; Nascobal; Neuroforte-R; Primabalt; Rubramin PC; Shovite; Vibal; Vibal LA; Vitabee 12.*

Category: Nutritional supplement (vitamin); Antianemic; Diagnostic aid (vitamin B₁₂ deficiency).

Conventional indications: Anemia, pernicious (treatment); Vitamin B₁₂ deficiency (prophylaxis and treatment); Vitamin B₁₂ deficiency (diagnosis) [Cyanocobalamin or hydroxocobalamin].

Primary Actions or Pathogenetic Symptoms

RECTUM: *diarrhea.*

SKIN: *itching.*

GENERALITIES: *anaphylactic reaction* (skin rash; itching; wheezing).

Vitamin D and Analogs (Systemic)

Commercial name(s): *Calciferol; Calciferol Drops; Calcijex; Calderol; DHT; DHT Intensol; Drisdol; Drisdol Drops; Hectorol; Hytakerol; One-Alpha; Ostoforte; Radiostol Forte; Rocaltrol; Zemplar.*

Category: Antihypocalcemic [Alfacalcidol; Calcifediol; Calcitriol; Dihydratichysterol; Ergocalciferol]; Nutritional supplement (vitamin) [Calcifediol; Calcitriol; Ergocalciferol]; Antihyperparathyroid [Calcitriol; Dihydratichysterol; Ergocalciferol]; Antihyperparathyroid [Doxercalciferol; Paricalcitol].

Conventional indications: Hypocalcemia, chronic (treatment); Hypophosphatemia (treatment); Osteodystrophy (treatment); Rickets (prophylaxis and treatment); Secondary hyperparathyroidism (prophylaxis and treatment) [Paricalcitol]; Tetany (prophylaxis and treatment) [Dihydratichysterol]; Vitamin D deficiency (prophylaxis and treatment) [Ergocalciferol].

Primary Actions or Pathogenetic Symptoms

MIND: lethargy (drowsiness); psychosis, overt (mood or mental changes).

VERTIGO: dizziness.

HEAD: headache, continuing.

EYE: conjunctivitis, calcific (redness or discharge of the eye, eyelid, or lining of the eyelid); irritation of eyes; sensitivity to light, increased.

NOSE: rhinorrhea (runny nose).

MOUTH: dryness; taste, metallic.

STOMACH: appetite, loss of; nausea; thirst, increased; vomiting.

ABDOMEN: pancreatitis (stomach pain, severe).

RECTUM: constipation; diarrhea.

BLADDER: amount of urine, increase in; frequency of urination, increase in, especially at night.

KIDNEYS: failure, renal.

URINE: cloudy urine.

GENITALIA MALE: libido, decreased (loss of sex drive).

GENITALIA FEMALE: libido, decreased (loss of sex drive).

CHEST: heartbeat, irregular.

EXTREMITIES: pain, bone or muscle.

FEVER: fever, high.

SKIN: itching; pruritus.

GENERALITIES: blood pressure, high; calcification, ectopic (calcium deposits in tissues other than bone); failure, cardiovascular; growth arrested (in children); heartbeat, irregular; pain, bone or muscle; pancreatitis (stomach pain, severe); tiredness or weakness, unusual; weight loss.

DIAGNOSTIC TESTS: cloudy urine; hypercalcemia.

Vitamin E (Systemic)

Commercial name(s): *Amino-Opti-E; Aquasol E; E-1000 I.U. Softgels; E-200 I.U. Softgels; E-400 I.U. in a Water Soluble Base; E-Complex-600; E-Vitamin Succinate; Liqui-E; Pheryl E; Vita-Plus E; Webber Vitamin E.*

Category: Nutritional supplement (vitamin).

Conventional indications: Vitamin E deficiency (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: dizziness.

HEAD: headache.

VISION: blurred vision.

STOMACH: cramps; nausea.

RECTUM: diarrhea.

GENITALIA MALE: sexual function, impaired.

GENITALIA FEMALE: sexual function, impaired.

GENERALITIES: bleeding tendencies, increased (in vitamin K-deficient patients); thromboembolism, increased risk of (in susceptible patients); thrombophlebitis, increased risk of (in susceptible patients); tiredness or weakness, unusual.

DIAGNOSTIC TESTS: metabolism of thyroid hormones, altered.

Vitamin K (Systemic)

Commercial name(s): *AquaMEPHYTON; Mephyton.*

Category: Nutritional supplement (vitamin), prothrombogenic [Menadiol sodium diphosphate; Phytonadione]; Antidote (to drug-induced hypoprothrombinemia) [Menadiol sodium diphosphate; Phytonadione]; Antihemorrhagic [Phytonadione].

Conventional indications: Hypoprothrombinemia (prophylaxis and treatment); Hemorrhagic disease of the newborn (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness.*

HEAD: *kernicterus* (decreased appetite; decreased movement or activity; difficulty in breathing; muscle stiffness) (in neonates) [Menadiol].

FACE: *flushing of face.*

MOUTH: *taste, unusual.*

RESPIRATION: *cyanosis* (bluish discoloration of skin).

CHEST: *pulse, rapid and weak.*

PERSPIRATION: *sweating, profuse.*

SKIN: *lesions, skin (plaques)* [repeated injection at one site].

GENERALITIES: *coagulation* [Phytonadione]; *anemia, hemolytic* (difficulty in breathing; enlarged liver; general body swelling; paleness) (in children or neonates) [Menadiol or large doses of Phytonadione]; *jaundice* (yellow eyes or skin) (in neonates) [Menadiol or large doses of Phytonadione]; *pain at injection site* [parenteral administration]; *redness at injection site* [parenteral administration]; *swelling at injection site* [parenteral administration]; *anaphylaxis* (difficult, fast, or irregular breathing; difficulty in swallowing; flushing or redness of skin; shortness of breath; skin rash, hives and/or itching; sudden, severe decrease in blood pressure; swelling of the eyelids, face or lips; tightness in chest; wheezing) [injection]; *cyanosis* (bluish discoloration of skin); *hyperbilirubinemia* (yellow eyes or skin) (in children or neonates) [Menadiol or large doses of Phytonadione]; *hypersensitivity-like reaction* (resembles hypersensitivity or anaphylaxis, including shock and cardiac and/or respiratory arrest) [after intravenous and following intramuscular administration of Phytonadione]; *hypotension, transient; pulse, rapid and weak.*

DIAGNOSTIC TESTS: *anemia, hemolytic* [Menadiol or large doses of Phytonadione]; *hyperbilirubinemia* (in children or neonates) [Menadiol or large doses of Phytonadione].

Vitamins, Multiple, and Fluoride (Systemic)

Commercial name(s): *Adeflor; Cari-Tab; Mulvidren-F; Poly-Vi-Flor; Tri-Vi-Flor; Vi-Daylin/F; ViDaylin/F.*

Category: Vitamin replenisher–dental caries prophylactic.

Conventional indications: Vitamin deficiency (prophylaxis and treatment); Dental caries (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: excitement, unusual.

VERTIGO: faintness.

EYE: watery eyes.

MOUTH: *ulceration, mucous membrane* (sores in the mouth and on the lips); watering, increased.

TEETH: discoloration of teeth, white, brown, or black; stiffness of teeth.

STOMACH: cramps; distress, gastrointestinal; nausea; pain; vomit, bloody; vomiting.

ABDOMEN: distress, gastrointestinal.

RECTUM: diarrhea.

STOOL: black, tarry stools.

RESPIRATION: shallow breathing.

CHEST: arrhythmias, cardiac.

EXTREMITIES: pain and aching of bones; tetany.

SLEEP: drowsiness.

SKIN: *allergic reaction* (skin rash).

GENERALITIES: arrhythmias, cardiac; death; electrolyte disturbances, hypocalcemia; pain and aching of bones; tetany; tremors; weakness.

DIAGNOSTIC TESTS: electrolyte disturbances, hypocalcemia.

Voriconazole (Systemic)

Commercial name(s): VFEND.

Category: Antifungal (systemic).

Conventional indications: Aspergillosis (treatment); Candidiasis, abdominal (treatment); Candidiasis, bladder wall (treatment); Candidiasis, disseminated (treatment); Candidiasis, esophageal (treatment); Candidiasis, kidney (treatment); Fungal infections, serious (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *hallucinations* (seeing things that are not there).

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *photophobia* (blurred vision; change in color vision; difficulty seeing at night; increased sensitivity of eyes to sunlight); *hemorrhage, eye* (blood in eye; eye pain; redness in whites of eyes).

VISION: **vision, abnormal** (changes in vision; blurred vision, seeing bright spots or wavy lines); *chromatopsia* (disturbance in vision).

FACE: *edema, peripheral* (bloating or swelling of face; rapid weight gain; tingling of hands or feet; unusual weight gain or loss).

MOUTH: *dryness*.

STOMACH: **nausea**; *pain, abdominal* (stomach pain); *vomiting*.

ABDOMEN: *pain, abdominal* (stomach pain); *bilirubinemia*.

RECTUM: *diarrhea*.

KIDNEYS: *failure, kidney, acute*.

CHEST: *tachycardia* (fast, pounding, or irregular heartbeat or pulse); *pain, chest*; *QT prolongation* (irregular heartbeat; recurrent fainting); *torsade de pointes* (chest pain or discomfort; irregular or slow heart rate; fainting; shortness of breath).

EXTREMITIES: *edema, peripheral* (bloating or swelling of arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss).

CHILL: *chills* (feeling unusually cold, shivering).

FEVER: fever.

SKIN: *rash*; *pruritus* (itching skin); *rash, maculopapular* (rash with flat lesions or small raised lesions on the skin); *erythema multiforme*; *necrolysis, toxic epidermal*; *photosensitivity reactions*.

GENERALITIES: *edema, peripheral* (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); *hypertension* (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); *hypokalemia* (convulsions; decreased urine; dry mouth; irregular heartbeat; increased thirst; loss of appetite; mood changes; muscle pain or cramps; nausea or vomiting; numbness or tingling in hands, feet, or lips; shortness of breath; unusual tiredness or weakness); *hypomagnesemia* (drowsiness; loss of appetite; mood or mental changes; muscle spasms [tetany] or twitching; seizures; nausea or vomiting; trembling; unusual tiredness or weakness); *hypotension* (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position; suddenly sweating); *jaundice, cholestatic* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea, abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *tachycardia* (fast, pounding, or irregular heartbeat or pulse); *vasodilation*; *anemia* (pale skin; troubled breathing with exertion; unusual bleeding or bruising; unusual tiredness or weakness); *bilirubinemia*; *erythema multiforme*; *jaundice* (chills; clay-colored stools; dark urine; dizziness; fever; headache; itching; loss of appetite; nausea; abdominal or stomach pain; area rash; unpleasant breath odor; unusual tiredness or weakness; vomiting of blood; yellow eyes or skin); *leukopenia* (black, tarry stools; chest pain; chills; cough; fever; painful or difficult urination; shortness of breath; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; unusual bleeding or bruising; unusual tiredness or weakness); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *Stevens-Johnson syndrome*; *thrombocytopenia* (black, tarry stools; bleeding gums; blood in urine or stools; pinpoint red spots on skin; unusual bleeding or bruising).

DIAGNOSTIC TESTS: *hypokalemia*; *hypomagnesemia*; *liver function tests, abnormal*; *anemia*; *bilirubinemia*; *kidney function, abnormal*; *leukopenia*; *pancytopenia*; *QT prolongation*; *thrombocytopenia*; *torsade de pointes*.

Warfarin Sodium (Systemic)

Commercial name(s): *Coumadin*.

Category: Anticoagulant.

Conventional indications: Thrombosis (prophylaxis and/or treatment); Thromboembolism (prophylaxis and/or treatment).

Primary Actions or Pathogenetic Symptoms

See Anticoagulants (Systemic).

Whole-cell DTP

Commercial name(s): *Acel-Immune; Certiva; Infanrix; Tripedia*.

Category: Immunizing agent (active).

Conventional indications: Diphtheria, tetanus, and pertussis (prophylaxis).

Primary Actions or Pathogenetic Symptoms

See Diphtheria and Tetanus Toxoids and Pertussis Vaccine Adsorbed (Systemic).

Xenon Xe 127 (Systemic)

Commercial name(s): *Xenon Xe 127 Gas.*

Category: Diagnostic aid, radioactive (pulmonary disease).

Conventional indications: Pulmonary function studies; Lung imaging, radionuclide.

Primary Actions or Pathogenetic Symptoms

There are no known side/adverse effects associated with the use of xenon Xe 127 as a diagnostic aid.

Xenon Xe 133 (Systemic)

Commercial name(s): *MPI Xenon Xe 133 Gas; MPI Xenon Xe 133 Gas Ampul; Xenon Xe 133-V.S.S.*

Category: Diagnostic aid, radioactive (pulmonary disease; cerebrovascular disease).

Conventional indications: Pulmonary function studies; Lung imaging, radionuclide; Blood flow studies, cerebral.

Primary Actions or Pathogenetic Symptoms

There are no known side/adverse effects associated with the use of xenon Xe 133 as a diagnostic aid.

Xylometazoline (Nasal)

Commercial name(s): *Decongest Nasal Spray; Otrivin Measured-Dose Pump with Moisturizers; Otrivin Nasal Drops; Otrivin Nasal Spray; Otrivin Nasal Spray with Eucalyptol; Otrivin Nasal Spray with Moisturizers; Otrivin Pediatric Nasal Drops; Otrivin Pediatric Nasal Spray; Otrivin With Measured-Dose Pump.*

Category: Decongestant (topical).

Conventional indications: Congestion, nasal (treatment); Congestion, sinus (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *nervousness.*

VERTIGO: *dizziness; lightheadedness.*

HEAD: *headache.*

VISION: *blurred vision.*

NOSE: *burning of nasal mucosa; discharge, increase in nasal; dryness of nasal mucosa; sneezing; stinging of nasal mucosa.*

STOMACH: *nausea.*

CHEST: *heartbeat, pounding, irregular, or fast.*

SLEEP: *trouble in sleeping.*

GENERALITIES: *allergic reaction (hives; rash; shortness of breath; swelling of eyelids, face, or lips; troubled breathing; wheezing); heartbeat, pounding, irregular, or fast;*

Materia Medica - Letter X

hypersensitivity (hives; rash; shortness of breath; swelling of eyelids, face, or lips; troubled breathing; wheezing).

Secondary Actions or Rebound Effects: *congestion, rebound* (increase in runny or stuffy nose).

Yellow Fever Vaccine (Systemic)

Commercial name(s): *YF-Vax*.

Category: Immunizing agent (active).

Conventional indications: Yellow fever (prophylaxis).

Primary Actions or Pathogenetic Symptoms

HEAD: headache, mild; encephalitis (confusion; convulsions; irritability; severe headache; stiff neck; vomiting).

EXTREMITIES: myalgia (muscle pain).

FEVER: fever, low grade.

GENERALITIES: myalgia (muscle pain); pain at inoculation site; anaphylaxis or anaphylactoid reaction (convulsions; coughing; difficulty in breathing or swallowing; fast heartbeat; generalized rash and itching; reddening of skin; sense of agitation or uneasiness; sensation of burning, crawling, or tingling of skin; sneezing; throbbing in the ears; sudden and severe unusual tiredness or weakness).

Yohimbine (Systemic)

Commercial name(s): *Actibine; Aphrodyne; Baron-X; Dayto Himbin; PMS-Yohimbine; Prohim; Thybine; Yocon; Yohimar; Yohimex; Yoman; Yovital*

Category: Impotence therapy agent; Mydriatic; Sympatholytic

Conventional indications: Impotence therapy agent; Mydriatic; Sympatholytic

Primary Actions or Pathogenetic Symptoms

MIND: irritability; nervousness; restlessness.

VERTIGO: dizziness.

HEAD: headache.

EYE: mydriasis (extensive pupils).

STOMACH: nausea; vomiting.

GENTALIA MALE: erection, prolonged.

CHEST: heart rate, increased.

PERSPIRATION: sweating.

SKIN: flushing.

GENERALITIES: sympatholytic (antiadrenergic); blood pressure, increased; heart rate, increased; tremor.

Zafirlukast (Systemic)

Commercial name(s): *Accolate*.

Category: Antiasthmatic (leukotriene receptor antagonist).

Conventional indications: Asthma, chronic (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

HEAD: *headache*.

STOMACH: *nausea*.

ABDOMEN: *hyperbilirubinemia*.

RESPIRATION: *infections, respiratory tract, mild or moderate*.

GENERALITIES: *Churg-Strauss syndrome* (systemic eosinophilic vasculitis, which may present as generalized flu-like symptoms [fever, muscle aches or pains, and weight loss], eosinophilia, vasculitic rash, worsening pulmonary symptoms, cardiac complications, or neuropathy); *eosinophilia, systemic; hepatitis; hyperbilirubinemia; infections, mild or moderate; infections, respiratory tract, mild or moderate*.

DIAGNOSTIC TESTS: *eosinophilia, systemic; hepatic transaminases, elevation of one or more; hyperbilirubinemia*.

Zalcitabine (Systemic)

Commercial name(s): *HIVID*.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus (HIV) infection (treatment); Human immunodeficiency virus (HIV) infection, advanced (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *depression* (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping).

HEAD: *headache*.

MOUTH: *stomatitis* (swelling or inflammation of the mouth); *ulceration of the mouth and throat*.

THROAT: *ulceration of the mouth and throat*.

STOMACH: *disturbances, gastrointestinal* (abdominal pain, mild; diarrhea; nausea); *nausea; pain, abdominal* (stomach pain); *vomiting*.

ABDOMEN: *disturbances, gastrointestinal* (abdominal pain, mild; diarrhea; nausea); *pain, abdominal* (stomach pain); *pancreatitis* (abdominal pain, severe; nausea; vomiting); *failure, hepatic; hepatomegaly, severe, with steatosis; hepatotoxicity* (yellow eyes or skin).

RECTUM: *constipation* (difficulty having a bowel movement (stool)); *diarrhea*.

CHEST: *cardiomyopathy; congestive heart failure*.

EXTREMITIES: **neuropathy, peripheral** (tingling, burning, numbness, or pain in the hands, arms, feet, or legs); *arthralgia* (joint pain); *myalgia* (muscle pain); *neuropathy, sensorimotor* (starts with numbness and a burning sensation in the distal extremities, followed by sharp shooting pain or severe continuous burning pain).

SLEEP: *drowsiness*.

FEVER: *fever*.

SKIN: *pruritus* (itching skin); *rash*; *urticaria* (hives or welts; itching; redness of skin; skin rash).

GENERALITIES: *arthralgia* (joint pain); *convulsions* (seizures); *fatigue* (unusual tiredness or weakness); *hypersensitivity* (fever; skin rash); *myalgia* (muscle pain); *pancreatitis* (abdominal pain, severe; nausea; vomiting); *acidosis, lactic, in the absence of hypoxemia*; *anaphylactoid reaction*; *death*; *leukopenia* (fever and sore throat); *neuropathy, sensorimotor* (starts with numbness and a burning sensation in the distal extremities, followed by sharp shooting pain or severe continuous burning pain); *neutropenia* (fever and sore throat).

DIAGNOSTIC TESTS: **hepatic function, abnormal** (lab results that show problems with liver); *leukopenia*; *neutropenia*; creatine kinase (CK) serum values, increased; gamma-glutamyltransferase values, increased.

Zaleplon (Systemic)

Commercial name(s): *Sonata*.

Category: Sedative-hypnotic.

Conventional indications: Insomnia (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *peacefulness* (serenity, calm); *amnesia* (memory loss); *anxiety*; *concentrating, difficulty*; *depersonalization* (not feeling like oneself); *depression, mental*; *nervousness*; *dysphoria* (sadness); *hallucinations* (seeing, hearing, smelling, or feeling things that are not there); coma; confusion, mental; lethargy (unusual drowsiness, dullness, or feeling sluggish).

VERTIGO: *dizziness*.

HEAD: *headache*; *migraine* (severe headache).

EYE: *conjunctivitis* (dry, itching, or burning eyes); *pain, eye*.

VISION: *vision, abnormal* (blurred or double vision).

EAR: *pain, ear*.

HEARING: *hyperacusis* (sensitive hearing).

NOSE: *epistaxis* (nosebleed); *parosmia* (sense of smell difficulty).

FACE: *edema, peripheral* (bloating or swelling of face; rapid weight gain).

MOUTH: *dryness*.

STOMACH: *nausea*; *dyspepsia* (heartburn, indigestion, or acid stomach); *anorexia* (loss of appetite); *vomiting*.

ABDOMEN: *pain, abdominal*; *cramps, abdominal and muscle*.

RECTUM: *constipation*.

GENITALIA FEMALE: *dysmenorrhea* (menstrual pain).

RESPIRATION: *bronchitis* (cough; shortness of breath; tightness in chest; troubled breathing; wheezing); respiratory problems (troubled breathing).

CHEST: *bronchitis* (cough; shortness of breath; tightness in chest; troubled breathing; wheezing); *pain, chest*.

BACK: *pain, back.*

EXTREMITIES: *myalgia* (muscle pain); *arthritis* (joint stiffness and/or pain); *hypertonia* (excess muscle tone); *cramps, abdominal and muscle*; *edema, peripheral* (swelling of fingers, hands, arms, legs, ankles, and feet; rapid weight gain); *tremors* (trembling or shaking); *ataxia, severe* (clumsiness or unsteadiness); *hypotonia* (weak muscle tone).

SLEEP: *somnolence* (drowsiness).

PERSPIRATION: *sweating, increased.*

FEVER: *fever.*

SKIN: *pruritus* (itching); *rash*; *photosensitivity* (increased sensitivity of skin and eyes to sunlight; blisters; skin rash; redness; burning sensation; severe sunburn).

GENERALITIES: *myalgia* (muscle pain); *arthritis* (joint stiffness and/or pain); *asthenia* (unusual weakness or tiredness); *hypertonia* (excess muscle tone); *paresthesia* (burning, prickling, or tingling sensation); *tremor* (trembling or shaking); *cramps, abdominal and muscle*; *edema, peripheral* (swelling of fingers, hands, arms, legs, ankles, and feet; bloating or swelling of face; rapid weight gain); *hypesthesia* (numbness); *malaise* (general feeling of discomfort or illness); *seizures*; *tremors* (trembling or shaking); *coma*; *hypotension* (dizziness or fainting); *hypotonia* (weak muscle tone).

Zanamivir (Inhalation-Systemic)

Commercial name(s): *Relenza.*

Category: Antiviral (systemic).

Conventional indications: Influenza A (treatment); Influenza B (treatment); Influenza A (prophylaxis) and [Influenza B (prophylaxis)].

Primary Actions or Pathogenetic Symptoms

VERTIGO: *dizziness*; *syncope* (fainting or lightheadedness when getting up from a lying or sitting position; unusually fast heartbeat or palpitations).

HEAD: *headache.*

EAR: *infections, ear* (change in hearing; earache; pain in ear; ear drainage).

NOSE: *infections, nose* (change in hearing; earache; pain in ear; ear drainage); *nasal signs and symptoms*; *sinusitis* (pain and pressure over the cheeks).

FACE: *edema, facial* (swelling or puffiness of face).

MOUTH: *edema, oropharyngeal.*

THROAT: *infections, throat* (change in hearing; earache; pain in ear; ear drainage); *edema, oropharyngeal.*

STOMACH: *nausea*; *vomiting.*

RECTUM: *diarrhea.*

RESPIRATION: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *bronchospasm* (difficulty breathing; shortness of breath; tightness in chest or wheezing); *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest or wheezing); *function, lung, declined* (in patients with chronic obstructive lung disease [COPD] and asthma).

COUGH: *cough.*

CHEST: *bronchitis* (cough producing mucus; difficulty breathing; shortness of breath; tightness in chest; wheezing); *arrhythmias* (dizziness; fainting or fast, slow, or irregular heartbeat); *bronchospasm* (difficulty breathing; shortness of breath; tightness in chest or wheezing); *function, lung, declined* (in patients with chronic obstructive lung disease (COPD) and asthma).

SKIN: *rash* (red, scaly, swollen, or peeling areas of skin).

GENERALITIES: *sinusitis* (pain and pressure over the cheeks); *allergic or allergic type reactions, including oropharyngeal edema* (itching, pain, redness, swelling or watering of eye or eyelid; troubled breathing or wheezing; severe skin rash or hives; flushing; increased sensitivity to sunlight; joint pain; swollen glands or tightness in throat); *arrhythmias* (dizziness; fainting or fast, slow, or irregular heartbeat); *seizures* (convulsions).

Ziconotide (Systemic)

Commercial name(s): *Prialt*.

Category: Analgesic.

Conventional indications: Pain, chronic (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **anxiety** (fear, nervousness); **aphasia** (problems with speech or speaking); **confusion**; **hallucinations** (seeing, hearing, or feeling things that are not there); **memory impairment**; **nervousness**; **speech disorder** (difficulty in speaking); **thinking abnormal**; *agitation*; *amnesia* (loss of memory, problems with memory); *concentrating, difficulty*; *depression* (discouragement, feeling sad or empty, irritability, lack of appetite, loss of interest or pleasure, tiredness, trouble concentrating, trouble sleeping); *emotional lability* (crying; depersonalization; dysphoria; euphoria; mental depression; paranoia; quick to react or overreact emotionally; rapidly changing moods); *hostility*; *paranoid reaction*; *psychosis* (feeling that others can hear your thoughts; feeling that others are watching you or controlling your behavior; feeling, seeing, or hearing things that are not there; severe mood or mental changes; unusual behavior); *slowing, mental*; *suicidal ideation* (thoughts of killing oneself, changes in behavior); *stupor* (decreased awareness or responsiveness; severe sleepiness); *suicide* (attempts at killing oneself); sedation (drowsiness, sleepiness, relaxed and calm); speech, garbled; unresponsiveness; word finding difficulties.

VERTIGO: **dizziness**; **gait, abnormal** (change in walking and balance, clumsiness, or unsteadiness); **vertigo** (dizziness or lightheadedness, feeling of constant movement of self or surroundings, sensation of spinning); *hypotension, postural* (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position); *syncope* (fainting).

HEAD: **headache**; *meningitis* (severe headache, drowsiness, confusion, stiff neck and/or back, general feeling of illness or nausea).

EYE: **nystagmus** (uncontrolled eye movements); *photophobia* (blurred vision; change in color vision; difficulty seeing at night; increased sensitivity of eyes to sunlight).

VISION: **vision, abnormal**; *diplopia* (double vision seeing double).

HEARING: tinnitus (continuing ringing or buzzing or other unexplained noise in ears; hearing loss).

NOSE: rhinitis (stuffy nose; runny nose; sneezing); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing).

MOUTH: **aphasia** (problems with speech or speaking); **speech disorder** (difficulty in speaking); dryness; taste perversion (change in taste; bad unusual or unpleasant (after)taste); speech, garbled.

THROAT: pharyngitis (body aches or pain; congestion; cough; dryness or soreness of throat; fever; hoarseness; runny nose; tender, swollen glands in neck; trouble in swallowing; voice changes).

EXTERNAL THROAT: pain, neck; rigidity neck (severe muscle stiffness).

STOMACH: **anorexia** (loss of appetite, weight loss); **nausea**; **vomiting**; disorder, gastrointestinal; dyspepsia (acid or sour stomach, belching, heartburn, indigestion, stomach discomfort, upset, or pain).

ABDOMEN: disorder, gastrointestinal; pain, abdominal.

RECTUM: diarrhea; constipation.

BLADDER: **retention, urinary**; dysuria (difficult or painful urination, burning while urinating); incontinence, urinary (loss of bladder control); infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); urination impaired.

KIDNEYS: failure, kidney, acute (back or side pain, nausea, vomiting); infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

RESPIRATION: bronchitis (cough producing mucus, difficulty breathing, shortness of breath, tightness in chest, wheezing); distress, respiratory (shortness of breath, troubled breathing, tightness in chest, or wheezing); dyspnea (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); pneumonia (chest pain, cough, fever or chills, sneezing, shortness of breath, sore throat, troubled breathing, tightness in chest, wheezing); pneumonia, aspiration (infection from breathing foreign substance into the lungs).

COUGH: cough increased.

CHEST: bronchitis (cough producing mucus, difficulty breathing, shortness of breath, tightness in chest, wheezing); fibrillation, atrial (fast or irregular heartbeat, dizziness, fainting); lung disorder; pain, chest; pneumonia (chest pain, cough, fever or chills, sneezing, shortness of breath, sore throat, troubled breathing, tightness in chest, wheezing); tachycardia (fast, pounding, or irregular heartbeat or pulse); pneumonia, aspiration (infection from breathing foreign substance into the lungs).

BACK: pain, back; myoclonus, spinal.

EXTREMITIES: **ataxia** (shakiness and unsteady walk, unsteadiness, trembling, or other problems with muscle control or coordination); **hypertonia** (excessive muscle tone, muscle tension or tightness, muscle stiffness); arthralgia (pain in joints, muscle pain or stiffness, difficulty in moving); arthritis (pain, swelling, or redness in joints, muscle pain or stiffness, difficulty in moving); cramps, leg; incoordination; myalgia (muscle pain); myasthenia (loss of strength or energy; muscle pain or weakness); myoclonus (muscle twitching or jerking,

rhythmic movement of muscles); neuralgia (nerve pain); rhabdomyolysis (dark-colored urine, fever, muscle cramps or spasms, muscle pain or stiffness, unusual tiredness or weakness); tremor (trembling or shaking of hands or feet; shakiness in legs, arms, hands, feet); twitching.

SLEEP: **somnolence** (sleepiness or unusual drowsiness); insomnia (sleeplessness; trouble sleeping; unable to sleep); sedation (drowsiness, sleepiness, relaxed and calm).

DREAMS: dreams, abnormal.

CHILL: chills.

FEVER: **fever**.

PERSPIRATION: sweating.

SKIN: cellulitis (itching, pain, redness, swelling, tenderness, warmth on skin); dryness; pruritus (itching skin); rash; skin disorder; surgical complication, cutaneous (red, scaly, swollen, or peeling areas of skin).

GENERALITIES: **analgesia** (pain absence); **asthenia** (lack or loss of strength); **dysesthesia** (burning, crawling, itching, numbness, prickling, "pins and needles", or tingling feelings); **hypertonia** (excessive muscle tone, muscle tension or tightness, muscle stiffness); **pain**; **paresthesia** (burning, crawling, itching, numbness, prickling, "pins and needles", or tingling feelings); anemia (pale skin, troubled breathing with exertion, unusual bleeding or bruising, unusual tiredness or weakness); arthralgia (pain in joints, muscle pain or stiffness, difficulty in moving); arthritis (pain, swelling, or redness in joints, muscle pain or stiffness, difficulty in moving); catheter complication (redness or pain at the catheter site, fever); convulsion, grand mal (convulsions, muscle spasm or jerking of all extremities sudden loss of consciousness, loss of bladder control); dehydration; ecchymosis (bruising; large, flat, blue or purplish patches in the skin); edema (swelling); flu syndrome; hyperesthesia (increased sensitivity to pain; increased sensitivity to touch; tingling in the hands and feet); hypertension (blurred vision; dizziness; nervousness; headache; pounding in the ears; slow or fast heartbeat); hypokalemia (abdominal pain; confusion; irregular heartbeat; nausea or vomiting; nervousness; numbness or tingling in hands, feet, or lips; shortness of breath; difficult breathing; weakness or heaviness of legs); hypotension (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); hypotension, postural (chills; cold sweats; confusion; dizziness, faintness, or lightheadedness when getting up from lying or sitting position); infection; infection, viral (chills; cough or hoarseness; fever; cold flu-like symptoms); injury, accidental; malaise (general feeling of discomfort or illness; unusual tiredness or weakness); myalgia (muscle pain); myasthenia (loss of strength or energy; muscle pain or weakness); myoclonus (muscle twitching or jerking, rhythmic movement of muscles); neuralgia (nerve pain); pain, catheter site or pump site; pump site complication; pump site mass; reflexes decreased; rhabdomyolysis (dark-colored urine, fever, muscle cramps or spasms, muscle pain or stiffness, unusual tiredness or weakness); sepsis (chills, confusion, dizziness, lightheadedness, fainting, fast heartbeat, fever, rapid, shallow breathing); sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); tachycardia (fast, pounding, or irregular heartbeat or pulse); twitching; vasodilation (feeling of warmth or heat; flushing or redness

of skin, especially on face and neck; headache; feeling faint, dizzy, or light-headedness; sweating); *weight loss*.

DIAGNOSTIC TESTS: *cerebrospinal fluid abnormal*; *creatinine phosphokinase increased*; *electrocardiogram abnormal*; *hypokalemia*.

Zidovudine (Systemic)

Commercial name(s): *Apo-Zidovudine*; *Novo-AZT*; *Retrovir*.

Category: Antiviral (systemic).

Conventional indications: Human immunodeficiency virus (HIV) infection (treatment); Mother-to-child transmission of HIV-1 infection (prophylaxis); Human immunodeficiency virus (HIV) infection, occupational exposure (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: lethargy.

HEAD: headache, severe.

EYE: nystagmus (involuntary, rapid, rhythmic movement of the eyes).

STOMACH: **anorexia** (loss of appetite, weight loss); **nausea**; **vomiting**; *cramps, abdominal* (stomach cramps); *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); *pain, abdominal* (stomach pain); disturbances, gastrointestinal (severe nausea and vomiting).

ABDOMEN: *cramps, abdominal* (stomach cramps); *hyperbilirubinemia* (yellow eyes or skin); *pain, abdominal* (stomach pain); *hepatomegaly, severe, with steatosis*; *hepatotoxicity* (abdominal discomfort; nausea; decreased appetite; general feeling of discomfort); disturbances, gastrointestinal (severe nausea and vomiting).

RECTUM: **constipation** (difficulty having a bowel movement [stool]).

EXTREMITIES: **myalgia** (muscle soreness); *neuropathy* (burning, tingling, numbness or pain in the hands, arms, feet, or legs; sensation of pins and needles stabbing pain); *pain, musculoskeletal* (muscle or bone pain); *myopathy* (muscular atrophy, tenderness, and weakness); ataxia (lack of coordination).

NAILS: *hyperpigmentation of nails* (bluish-brownish bands).

SLEEP: **insomnia** (trouble in sleeping).

CHILL: *chills*.

SKIN: *pigmentation, changes in* (changes in skin coloring).

GENERALITIES: **anemia** (pale skin; unusual tiredness or weakness); **asthenia** (lack or loss of strength); **granulocytopenia**; **leukopenia** (fever, chills, or sore throat); **malaise** (general feeling of discomfort or illness unusual tiredness or weakness); **myalgia** (muscle soreness); **neutropenia** (fever, chills, or sore throat); *fatigue* (unusual tiredness or weakness); *hyperbilirubinemia* (yellow eyes or skin); *neuropathy* (burning, tingling, numbness or pain in the hands, arms, feet, or legs; sensation of pins and needles stabbing pain); *pain, musculoskeletal* (muscle or bone pain); *acidosis, lactic* (diarrhea; fast, shallow breathing; muscle pain or cramping; shortness of breath; sleepiness; unusual tiredness or weakness); *bone marrow depression* (fever, chills, or sore throat; pale skin; unusual tiredness or weakness); *myopathy* (muscular atrophy, tenderness, and weakness);

neurotoxicity (confusion; mood or mental changes; seizures); seizures (convulsions); thrombocytopenia (pale skin; unusual tiredness or weakness; fever, chills, or sore throat; increase in bleeding or bruising).

DIAGNOSTIC TESTS: **anemia**; **granulocytopenia**; **leukopenia**; **neutropenia**; hyperbilirubinemia; platelet count, changes in; bone marrow depression; liver transaminases, increase in; thrombocytopenia.

Zileuton (Systemic)

Commercial name(s): Zyflo.

Category: Antiasthmatic (leukotriene inhibitor).

Conventional indications: Asthma, chronic (prophylaxis and treatment).

Primary Actions or Pathogenetic Symptoms

STOMACH: *dyspepsia* (upset stomach); **nausea**.

ABDOMEN: pain, abdominal; *hyperbilirubinemia*; *impairment, hepatic function* (flu-like symptoms; itching; nausea; right upper abdominal pain; unusual tiredness or weakness; yellow eyes or skin).

GENERALITIES: asthenia (weakness); *hepatitis with jaundice*; *hyperbilirubinemia*.

DIAGNOSTIC TESTS: *hyperbilirubinemia*; *serum ALT values at least three times the upper limit of normal*; *transaminases elevations*.

Zinc Supplements (Systemic)

Commercial name(s): *Orazinc*; *PMS Egozinc*; *Verazinc*; *Zinc 15*; *Zinc-220*; *Zinca-Pak*; *Zincate*.

Category: Nutritional supplement (mineral); Copper absorption inhibitor.

Conventional indications: Zinc deficiency (prophylaxis and treatment); Wilson's disease (treatment adjunct).

Primary Actions or Pathogenetic Symptoms

STOMACH: *dyspepsia* (indigestion); *nausea*; *pain, epigastric* (heartburn); vomiting.

CHEST: edema, pulmonary (chest pain or shortness of breath).

GENERALITIES: *anemia, sideroblastic* (unusual tiredness or weakness); *copper deficiency, zinc-induced*; *hematologic abnormalities, secondary to zinc-induced copper deficiency, specifically leukopenia* [fever, chills, or sore throat], *neutropenia* [continuing ulcers or sores in mouth or throat], *leukopenia* [fever, chills, or sore throat]; *neutropenia* (continuing ulcers or sores in mouth or throat); hypotension (dizziness or fainting); jaundice (yellow eyes or skin).

DIAGNOSTIC TESTS: *anemia, sideroblastic*; *neutropenia*.

Ziprasidone (Systemic)

Commercial name(s): *Geodon*.

Category: Antipsychotic.

Conventional indications: Acute agitation in schizophrenic patients (treatment) [Ziprasidone intramuscular]; Bipolar mania (treatment); Schizophrenia (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: **akathisia** (involuntary movements); depression; *anxiety*; sedation (drowsiness; sleepiness); speech, slurring of.

VERTIGO: **dizziness**; hypotension, orthostatic (feeling faint upon standing); *syncope* (fainting).

VISION: vision, abnormal (change in vision).

NOSE: rhinitis (stuffy nose; runny nose; sneezing).

MOUTH: dryness; *salivation, increased*; speech, slurring of.

STOMACH: **dyspepsia** (acid or sour stomach; belching; heartburn; indigestion; stomach discomfort upset or pain); **nausea**; anorexia (loss of appetite; weight loss); vomiting.

RECTUM: **constipation**; **diarrhea**.

GENITALIA MALE: *priapism* (persistent, painful erection).

RESPIRATION: infection, respiratory tract (coughing, sneezing, sore throat, stuffy or runny nose).

COUGH: *cough increased*.

CHEST: pain, chest; QTc prolongation (irregular heartbeat recurrent fainting); tachycardia (fast, pounding, or irregular heartbeat or pulse; palpitations); *arrhythmias, cardiac* (dizziness; feeling faint or fainting; fast or racing heartbeat; pounding or irregular heartbeat).

EXTREMITIES: **akathisia** (involuntary movements); dystonia (inability to move eyes; increased blinking or spasms of eyelid; sticking out of tongue; trouble in breathing, speaking, or swallowing; uncontrolled twisting movements of neck, trunk, arms, or legs; unusual facial expressions; weakness of arms and legs); hypertonia (muscle tightness); myalgia (muscle ache); *arthralgia*.

SLEEP: **somnolence** (sleepiness or unusual drowsiness); sedation (drowsiness; sleepiness).

SKIN: **rash**; dermatitis, fungal (red, itchy skin).

GENERALITIES: **asthenia** (lack or loss of strength; weakness); **extrapyramidal syndrome** (difficulty in speaking; drooling; loss of balance control; muscle trembling, jerking, or stiffness; restlessness; shuffling walk; stiffness of limbs; twisting movements of body; uncontrolled movements, especially of face, neck, and back); **weight gain**; hypertonia (muscle tightness); hypotension, orthostatic (feeling faint upon standing); infection, respiratory tract (coughing, sneezing, sore throat, stuffy or runny nose); myalgia (muscle ache); tachycardia (fast, pounding, or irregular heartbeat or pulse; palpitations); *arrhythmias, cardiac* (dizziness; feeling faint or fainting; fast or racing heartbeat; pounding or irregular heartbeat); *arthralgia*; *convulsions* (seizures); *tremor*; hypertension, transitory.

DIAGNOSTIC TESTS: QTc prolongation.

Secondary Actions or Rebound Effects: dystonia (inability to move eyes; increased blinking or spasms of eyelid; sticking out of tongue; trouble in breathing, speaking, or

swallowing; uncontrolled twisting movements of neck, trunk, arms, or legs; unusual facial expressions; weakness of arms and legs).

Zoledronic Acid (Systemic)

Commercial name(s): *Zometa*.

Category: Bone resorption inhibitor; Antihypercalcemic.

Conventional indications: Hypercalcemia, neoplasm-associated (treatment); Metastases, bone (treatment adjunct); Multiple myeloma (treatment); Drug-induced osteopenia, secondary to androgen-deprivation therapy in prostate cancer patients (prophylaxis).

Primary Actions or Pathogenetic Symptoms

MIND: agitation (anxiety; nervousness; restlessness; irritability; dry mouth; shortness of breath; hyperventilation; trouble sleeping; irregular heartbeats; shaking); **anxiety** (fear; nervousness); **confusion**; **depression** (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); hallucination (seeing, hearing, or feeling things that are not there).

VERTIGO: dizziness.

HEAD: alopecia (hair loss; thinning of hair); **headache.**

FACE: osteonecrosis of the jaw [ONJ] (heavy jaw feeling; loosening of a tooth; pain, swelling, or numbness in the mouth or jaw).

MOUTH: mucositis (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth); **stomatitis** (swelling or inflammation of the mouth); taste perversion (change in taste; bad, unusual or unpleasant [after] taste).

THROAT: dysphagia (difficulty swallowing); **soreness.**

STOMACH: anorexia (loss of appetite; weight loss); **nausea; vomiting; thirst.**

ABDOMEN: pain, abdominal.

RECTUM: constipation; diarrhea; mucositis (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth).

BLADDER: infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain).

KIDNEYS: infection, urinary tract (bladder pain; bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate; lower back or side pain); **toxicity, renal** (agitation; blood in urine; coma; confusion; decreased urine output; depression; dizziness; headache; irritability; lethargy; muscle twitching; nausea; rapid weight gain; seizures; stupor; swelling of face, ankles, or hands; unusual tiredness or weakness); *deterioration, renal* (lower back/side pain; decreased frequency/amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure); *failure, renal* (lower back/side pain; decreased frequency/amount of urine; bloody urine; increased thirst; loss of appetite; nausea; vomiting; unusual tiredness or weakness; swelling of face, fingers, lower legs; weight gain; troubled breathing; increased blood pressure).

RESPIRATION: **dyspnea** (shortness of breath, difficult or labored breathing; tightness in chest; wheezing); **infection, upper respiratory tract** (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing).

COUGH: **cough.**

CHEST: **effusion, pleural** (chest pain; shortness of breath); **pain, chest;** *bradycardia* (chest pain or discomfort; lightheadedness, dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness).

BACK: **pain, back.**

EXTREMITIES: *exostosis* (bone growth); **arthralgia** (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); **edema, leg** (swelling of leg); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **pain, skeletal.**

SLEEP: **insomnia** (sleeplessness; trouble sleeping; unable to sleep); **somnolence** (sleepiness or unusual drowsiness).

CHILL: **rigors** (feeling unusually cold, shivering).

FEVER: **fever; pyrexia** (fever).

SKIN: **alopecia** (hair loss; thinning of hair); **dermatitis** (blistering, crusting, irritation, itching, or reddening of skin; cracked, dry, scaly skin; swelling); *pruritus* (itching skin).

GENERALITIES: *exostosis* (bone growth); *hypocalcemia* (convulsions; irregular heartbeats; mood or mental changes, confusion; muscle cramps or shaking of hands, arms, feet, legs, or face; numbness and tingling around the mouth, fingertips, or feet); **alopecia** (hair loss; thinning of hair); **anemia** (pale skin; troubled breathing; unusual bleeding or bruising; unusual tiredness or weakness); **arthralgia** (pain, swelling, or redness in joints; muscle pain or stiffness; difficulty in moving); **asthenia** (lack or loss of strength); **dehydration; fatigue** (unusual tiredness or weakness); **granulocytopenia** (black, sticky stools; lower back or side pain; painful or difficult urination; unusual bleeding or bruising; unusual tiredness or weakness); **hypoesthesia** (partial loss of feeling); **hypokalemia** (convulsions; irregular heartbeat; nausea or vomiting; mood changes; muscle pain or cramps); **hypomagnesemia** (muscle trembling or twitching); **hypophosphatemia** (unusual tiredness or weakness); **hypotension** (blurred vision; confusion; dizziness, faintness, or lightheadedness when getting up from a lying or sitting position; suddenly sweating; unusual tiredness or weakness); **infection, upper respiratory tract** (ear congestion; nasal congestion; chills; cough; fever; sneezing; sore throat; body aches or pain; headache; loss of voice; runny nose; unusual tiredness or weakness; difficulty in breathing); **moniliasis** (skin rash; cracks in skin at the corners of mouth ; soreness or redness around fingernails and toenails); **mucositis** (cracked lips; diarrhea; difficulty in swallowing; sores, ulcers, or white spots on lips, tongue, or inside mouth); **myalgia** (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); **neutropenia** (chills; cough; fever; sore throat; sores, ulcers, or white spots on lips or in mouth; swollen glands; black, tarry, stools; lower back or side pain; painful or difficult urination; pale skin; shortness of breath; unusual bleeding or bruising; unusual tiredness or weakness); **pain, skeletal; pancytopenia** (black, sticky stools; lower back or side pain; painful or difficult urination; unusual bleeding or bruising; unusual tiredness or weakness); **paresthesia** (burning, crawling, itching, numbness, prickling, "pins and needles", or tingling feelings);

thrombocytopenia (black, sticky stools; lower back or side pain; painful or difficult urination; unusual bleeding or bruising; unusual tiredness or weakness); **weakness**; *bradycardia* (chest pain or discomfort; lightheadedness, dizziness or fainting; shortness of breath; slow or irregular heartbeat; unusual tiredness).

DIAGNOSTIC TESTS: *hypocalcemia*; **anemia**; **granulocytopenia**; **hypokalemia**; **hypomagnesemia**; **hypophosphatemia**; **neutropenia**; **pancytopenia**; **thrombocytopenia**.

Zolmitriptan (Systemic)

Commercial name(s): *AscoTop*; *Zomig*; *Zomig Rapimelt*; *Zomig ZMT*; *Zomigon*.

Category: Antimigraine agent.

Conventional indications: Headache, migraine (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation*; *anxiety*; *depression*.

VERTIGO: **dizziness**; *syncope* (fainting).

FACE: *discomfort in jaw*; *edema* (swelling of face).

MOUTH: *discomfort in mouth*; *dryness*.

THROAT: *discomfort in throat*; *dysphagia* (difficulty swallowing).

EXTERNAL THROAT: **heaviness in neck**; **pressure in neck**; **tightness in neck**.

STOMACH: **nausea**; *dyspepsia* (heartburn); *gastroenteritis* (severe abdominal pain; diarrhea; loss of appetite; nausea; weakness).

ABDOMEN: *gastroenteritis* (severe abdominal pain; diarrhea; loss of appetite; nausea; weakness).

BLADDER: *polyuria* (sudden, large increase in frequency and quantity of urine).

CHEST: **heaviness in chest**; **pain, chest, severe**; **pressure in chest**; **tightness in chest**; *arrhythmias* (irregular heartbeat); *palpitations* (pounding heartbeat); *vasospasm, coronary artery*.

EXTREMITIES: *edema* (swelling of fingers, feet and/or lower legs); *myalgia* (muscle aches).

SLEEP: **somnolence** (sleepiness).

PERSPIRATION: *sweating*.

SKIN: *pruritus* (itching of the skin); *rash*.

GENERALITIES: **asthenia** (unusual tiredness or muscle weakness); **paresthesia** (sensation of burning, warmth, heat, numbness, tightness, or tingling); *arrhythmias* (irregular heartbeat); *ecchymosis* (large, nonelevated blue or purplish patches in the skin); *hypertension* (increased blood pressure); *myalgia* (muscle aches); *palpitations* (pounding heartbeat); *leukopenia* (fever or chills; cough or hoarseness; lower back or side pain; painful or difficult urination).

DIAGNOSTIC TESTS: *leukopenia*.

Zolpidem (Systemic)

Commercial name(s): *Ambien*.

Category: Sedative-hypnotic.

Conventional indications: Insomnia (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *peacefulness* (serenity, calm); *amnesia, anterograde* (memory problems); *confusion; depression, mental; drugged feelings*; unconsciousness.

VERTIGO: *dizziness; lightheadedness; vertigo; falling*.

HEAD: *headache*.

VISION: *abnormalities, vision; diplopia* (double vision); disturbed vision.

MOUTH: *dryness*.

STOMACH: *nausea; pain, gastric; vomiting; cramps; discomfort, stomach*.

ABDOMEN: *pain, abdominal; cramps; discomfort, abdominal*.

RECTUM: *diarrhea*.

RESPIRATION: respiratory problems (troubled breathing).

CHEST: compromise, cardiovascular (slow heartbeat).

EXTREMITIES: *ataxia* (clumsiness or unsteadiness); *cramps, muscle*.

SLEEP: *drowsiness, daytime*; drowsiness, severe.

DREAMS: *dreams, abnormal, including nightmares*.

SKIN: *rash*.

GENERALITIES: *drugged feelings; malaise* (general feeling of discomfort or illness); *allergic reaction; anaphylaxis* (fast heartbeat; swelling of face; wheezing or difficulty in breathing); *cramps, muscle; hypotension* (dizziness, lightheadedness, or fainting); *tiredness or weakness, unusual*; compromise, cardiovascular (slow heartbeat).

Secondary Actions or Rebound Effects: *agitation* (unusual excitement or nervousness); *crying, uncontrolled; flushing; hallucinations* (seeing, hearing, or feeling things that are not there); *insomnia* (trouble in sleeping); *irritability; nervousness; panic, feelings of; paradoxical reactions* (agitation; hallucinations; insomnia; irritability); *psychotic exacerbation* (worsening of mental or emotional problems).

Zonisamide (Systemic)

Commercial name(s): Zonegran.

Category: Anticonvulsant.

Conventional indications: Epilepsy, partial (treatment).

Primary Actions or Pathogenetic Symptoms

MIND: *agitation* (anxiety; restlessness); **concentrating, difficulty in; confusion** (mood or mental changes); **depression** (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); **irritability** (anxiety; restlessness); **memory, difficulty with; anxiety; behavior, schizophrenic or schizophreniform** (agitation; delusions; hallucinations); *nervousness; slowing, mental; speech abnormalities* (difficulty in speaking); *verbal expression, difficulty in* (problems with speech or speaking); coma (loss of consciousness).

VERTIGO: *dizziness*.

HEAD: *headache*.

EYE: *nystagmus* (uncontrolled back and forth and/or rolling eye movements).

VISION: *diplopia* (double vision).

NOSE: *rhinitis* (runny nose; sneezing; stuffy nose).

MOUTH: *dryness*; *speech abnormalities* (difficulty in speaking); *taste perversion* (bad, unusual, or unpleasant taste; change in taste); *verbal expression, difficulty in* (problems with speech or speaking).

STOMACH: *anorexia* (loss of appetite); *nausea*; *dyspepsia* (acid or sour stomach; belching; heartburn; indigestion).

ABDOMEN: *pain, abdominal*; *necrosis, hepatic, fulminant*.

RECTUM: *constipation*; *diarrhea*.

RESPIRATION: *depression, respiratory* (blue fingernails, lips, or skin; difficult or troubled breathing).

CHEST: *bradycardia* (slow or irregular heartbeat).

EXTREMITIES: *ataxia* (shakiness and unsteady walk).

SLEEP: *insomnia* (sleeplessness; trouble sleeping); *somnolence* (sleepiness; unusual drowsiness).

FEVER: *heat stroke*; *hyperthermia* (in pediatric patients).

PERSPIRATION: *oligohidrosis* (in pediatric patients).

SKIN: *rash*; *necrolysis, toxic epidermal*.

GENERALITIES: *fatigue* (unusual tiredness or weakness); *tiredness*; *ecchymosis* (bruising; large, flat, blue or purplish patches on the skin); *flu syndrome* (aching muscles and joints; chills; headache; fever; general feeling of discomfort); *paresthesia* (tingling, burning, or prickly sensations); *weight loss*; *agranulocytosis*; *anemia, aplastic*; *blood dyscrasias*; *heat stroke*; *Stevens-Johnson syndrome*; *bradycardia* (slow or irregular heartbeat); *coma* (loss of consciousness); *hypotension* (confusion; dizziness, faintness or light-headedness when getting up from a lying down or sitting position; unusual tiredness or weakness).

DIAGNOSTIC TESTS: *agranulocytosis*; *anemia, aplastic*.

Zopiclone (Systemic)

Commercial name(s): *Imovane*.

Category: Sedative-hypnotic.

Conventional indications: *Insomnia (treatment)*.

Primary Actions or Pathogenetic Symptoms

MIND: *peacefulness* (serenity, calm); **anxiety, daytime**; **confusion** (mental or mood changes); **depression, mental** (mood or mental changes); **restlessness, daytime**; **speech disorders** (difficulty speaking); *behavior, unusual*; *extroversion* (behavior or mental changes); *amnesia, anterograde* (memory problems); *depersonalization*; *restlessness*; *thoughts, abnormal*; *coma* (loss of consciousness); *lethargy* (unusual tiredness or weakness; sluggishness; reduced physical activity).

VERTIGO: *dizziness*.

VISION: *amblyopia* (impaired vision).

MOUTH: *coated tongue*; *dryness*; *halitosis* (bad breath); *speech disorders* (difficulty speaking); *taste disturbance* (altered sense of taste; bitter (after) taste); *sialorrhea* (increase in the amount of saliva).

STOMACH: *anorexia* (loss of appetite); *appetite, increased*; *dyspepsia* (heartburn; indigestion; stomach upset); *vomiting*.

RECTUM: *constipation*.

RESPIRATION: *dyspnea* (shortness of breath; difficult or labored breathing; tightness in chest; wheezing).

CHEST: *palpitations* (fast, irregular, or pounding heartbeat).

EXTREMITIES: *coordination, impaired* (clumsiness or unsteadiness; difficulty with coordination); *hypotonia* (decreased muscle tone); *heaviness, limb* (feeling of heaviness of arms and legs); *tremor* (trembling or shaking of fingers, hands, arms, feet, or legs); ataxia (clumsiness or unsteadiness); reflexes, reduced or absent.

SLEEP: *drowsiness*; somnolence, profound (unusual sleepiness).

CHILL: *chills*.

PERSPIRATION: *sweating, increased*.

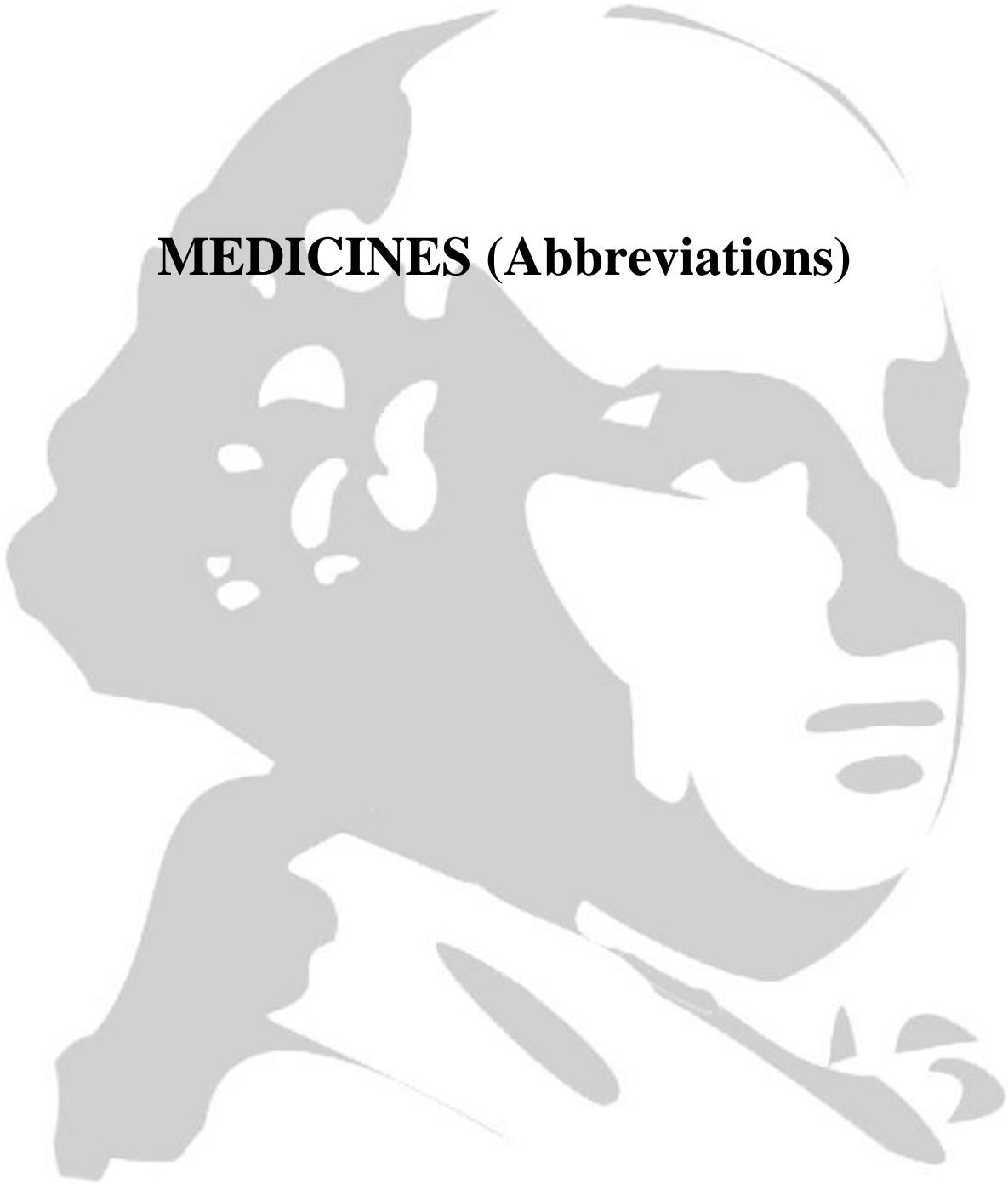
SKIN: *rash*; *hypersensitivity* (skin rash).

GENERALITIES: *asthenia* (unusual tiredness or weakness); *hypotonia* (decreased muscle tone); *weight loss*; *palpitations* (fast, irregular, or pounding heartbeat); *paresthesia* (tingling, burning, or prickly sensation); *seizures*; *tremors*; coma (loss of consciousness).

Secondary Actions or Rebound Effects: *aggressiveness* (behavior or mental changes); *agitation*; *hallucinations*; *illusions* (behavior or mental changes); *insomnia*, *rebound*.

Homeopathic Materia Medica of Modern Drugs

MEDICINES (Abbreviations)



Letter A

Abac-syst., Abacavir (Systemic).
AbLam-syst., Abacavir and Lamivudine (Systemic).
AbLamZid-syst., Abacavir, Lamivudine and Zidovudine (Systemic).
Abar-syst., Abarelix (Systemic).
Abcix-syst., Abciximab (Systemic).
Acamp-syst., Acamprosate (Systemic).
Acarb-syst., Acarbose (Systemic).
Acet-syst., Acetaminophen (Systemic).
AcetSal-syst., Acetaminophen and Salicylates (Systemic).
AcSodCit-syst., Acetaminophen, Sodium Bicarbonate, and Citric Acid (Systemic).
Acetyl-inh., Acetylcysteine (Inhalation).
Acetyl-syst., Acetylcysteine (Systemic).
Acit-syst., Acitretin (Systemic).
Acyc-syst., Acyclovir (Systemic).
Acyc-top., Acyclovir (Topical).
Adal-syst., Adalimumab (Systemic).
Adap-top., Adapalene (Topical).
Adef-syst., Adefovir (Systemic).
Aden-syst., Adenosine (Systemic).
Agal-syst., Agalsidase Beta (Systemic).
Albd-syst., Albendazole (Systemic).
Album-syst., Albumin Human (Systemic).
AlbMic-syst., Albumin Microspheres Sonicated (Systemic).
AlcAc-top., Alcohol and Acetone (Topical).
AlcSul-top., Alcohol and Sulphur (Topical).
Aldes-syst., Aldesleukin (Systemic).
Alef-syst., Alefacept (Systemic).
Alemt-syst., Alemtuzumab (Systemic).
Alend-syst., Alendronate (Systemic).
Alfuz-syst., Alfuzosin (Systemic).
Algl-syst., Alglucerase (Systemic).
Alit-top., Alitretinoin (Topical).
Allop-syst., Allopurinol (Systemic).
Almot-syst., Almotriptan (Systemic).
Alos-syst., Alosetron (Systemic).
Alpha-syst., Alpha 1-proteinase Inhibitor, Human (Systemic).
Alpr-loc., Alprostadil (Local).
Alpr-syst., Alprostadil (Systemic).
Altr-syst., Altretamine (Systemic).
Aman-syst., Amantadine (Systemic).
Amif-syst., Amifostine (Systemic).
AminPot-syst., Aminobenzoate Potassium (Systemic).

Medicines (Abbreviations)

AmincAc-syst., Aminocaproic Acid (Systemic).
Aminglut-syst., Aminoglutethimide (Systemic).
Aminglyc-syst., Aminoglycosides (Systemic).
AminlAc-top., Aminolevulinic Acid (Topical).
AminsSod-syst., Aminosalicylate Sodium (Systemic).
Amio-syst., Amiodarone (Systemic).
Amlex-mucloc., Amlexanox (Mucosal-Local).
Amlod-syst., Amlodipine (Systemic).
AmlodAt-syst., Amlodipine and Atorvastatin (Systemic).
AmlodBen-syst., Amlodipine and Benazepril (Systemic).
AmmSAr-syst., Ammonia Spirit, Aromatic (Systemic).
AmmMer-top., Ammoniated Mercury (Topical).
Amph-syst., Amphetamines (Systemic).
AmphoB-syst., Amphotericin B (Systemic).
AmphoB-top., Amphotericin B (Topical).
AmphoBCC-syst., Amphotericin B Cholesteryl Complex (Systemic).
AmphoBLC-syst., Amphotericin B Lipid Complex (Systemic).
AmphoBLsC-syst., Amphotericin B Liposomal Complex (Systemic).
Ampr-syst., Amprenavir (Systemic).
Amsa-syst., Amsacrine (Systemic).
AmylN-syst., Amyl Nitrite (Systemic).
AnabS-syst., Anabolic Steroids (Systemic).
Anag-syst., Anagrelide (Systemic).
Anak-syst., Anakinra (Systemic).
Anast-syst., Anastrozole (Systemic).
Andro-syst., Androgens (Systemic).
Anest-mucloc., Anesthetics (Mucosal-Local).
Anest-oph., Anesthetics (Ophthalmic).
Anest-parloc., Anesthetics (Parenteral-Local).
Anest-top., Anesthetics (Topical).
AnestBar-syst., Anesthetics, Barbiturate (Systemic).
AnestInh-syst., Anesthetics, Inhalation (Systemic).
AngIn-syst., Angiotensin-converting Enzyme (ACE) Inhibitors (Systemic).
AngInH-syst., Angiotensin-converting Enzyme (ACE) Inhibitors and Hydrochlorothiazide (Systemic).
Anid-syst., Anidulafungin (Systemic).
Antac-orloc., Antacids (Oral-Local).
Anth-top., Anthralin (Topical).
AntinfN-oph., Anti-inflammatory Drugs, Nonsteroidal (Ophthalmic).
AntinfN-syst., Anti-inflammatory Drugs, Nonsteroidal (Systemic).
AntCoaC-syst., Anti-inhibitor Coagulant Complex (Systemic).
AnthyGR-syst., Anti-thymocyte Globulin (Rabbit) (Systemic).
AntandN-syst., Antiandrogens, Nonsteroidal (Systemic).
Antchsp-syst., Anticholinergics/ Antispasmodics (Systemic).
Antcoa-syst., Anticoagulants (Systemic).

Medicines (Abbreviations)

AntconD-syst., Anticonvulsants, Dione (Systemic).
AntconH-syst., Anticonvulsants, Hydantoin (Systemic).
AntconS-syst., Anticonvulsants, Succinimide (Systemic).
AntdepMAO-syst., Antidepressants, Monoamine Oxidase (MAO) Inhibitor (Systemic).
AntdepT-syst., Antidepressants, Tricyclic (Systemic).
AntdiaS-syst., Antidiabetic Agents, Sulfonylurea (Systemic).
Antdys-syst., Antidyskinetics (Systemic).
AntfunA-syst., Antifungals, Azole (Systemic).
AntfunA-vag., Antifungals, Azole (Vaginal).
AntglaC-oph., Antiglaucoma Agents, Cholinergic, Long-acting (Ophthalmic).
AnthemF-syst., Antihemophilic Factor (Systemic).
Anthis-syst., Antihistamines (Systemic).
AnthisD-syst., Antihistamines and Decongestants (Systemic).
AnthisDAg-syst., Antihistamines, Decongestants, and Analgesics (Systemic).
AnthisDAc-syst., Antihistamines, Decongestants, and Anticholinergics (Systemic).
AnthisP-syst., Antihistamines, Phenothiazine-derivative (Systemic).
Antm-syst., Antimyasthenics (Systemic).
AntpBen-ot., Antipyrine and Benzocaine (Otic).
Anthro-syst., Antithrombin III (Systemic).
Antthyr-syst., Antithyroid Agents (Systemic).
AntvCPol-syst., Antivenin (Crotalidae) Polyvalent (Systemic).
AntvCPOv-syst., Antivenin (Crotalidae) Polyvalent Immune Fab (Ovine) (Systemic).
AntvL-syst., Antivenin (Latrodectus Mactans) (Systemic).
AntvM.-syst., Antivenin (Micrurus Fulvius) (Systemic).
AppSupS-syst., Appetite Suppressants, Sympathomimetic (Systemic).
Aprac-oph., Apraclonidine (Ophthalmic).
Aprep-syst., Aprepitant (Systemic).
Aprot-syst., Aprotinin (Systemic).
Arb-syst., Arbutamine (Systemic).
Ard-syst., Ardeparin (Systemic).
Arg-syst., Argatroban (Systemic).
Arip-syst., Aripiprazole (Systemic).
ArsTr-syst., Arsenic Trioxide (Systemic).
AscAc-syst., Ascorbic Acid (Systemic).
Aspar-syst., Asparaginase (Systemic).
AspirSC-syst., Aspirin, Sodium Bicarbonate, and Citric Acid (Systemic).
Ataz-syst., Atazanavir (Systemic).
Atom-syst., Atomoxetine (Systemic).
Atorv-syst., Atorvastatin (Systemic).
Atova-syst., Atovaquone (Systemic).
AtovaPro-syst., Atovaquone and Proguanil (Systemic).
Atrop-oph., Atropine (Ophthalmic).
AtropB-syst., Atropine, Hyoscyamine, Methenamine, Methylene Blue, Phenyl Salicylate, and Benzoic Acid (Systemic).
Atta-orloc., Attapulgit (Oral-Local).

Medicines (Abbreviations)

Azac-syst., Azacitidine (Systemic).
Azat-syst., Azathioprine (Systemic).
AzeAc-top., Azelaic Acid (Topical).
Azel-nas., Azelastine (Nasal).
Azel-oph., Azelastine (Ophthalmic).
Azith-syst., Azithromycin (Systemic).
Aztr-syst., Aztreonam (Systemic).

Letter B

BcgL-mucloc., Bacillus Calmette-Guérin (BCG) Live (Mucosal-Local).
BcgL-syst., Bacillus Calmette-Guérin (BCG) Live (Systemic).
Bacl-intsyst., Baclofen (Intrathecal-Systemic).
Bacl-syst., Baclofen (Systemic).
Bals-syst., Balsalazide (Systemic).
Barb-syst., Barbiturates (Systemic).
BarbAn-syst., Barbiturates and Analgesics (Systemic).
BarS-loc., Barium Sulfate (Local).
Basil-syst., Basiliximab (Systemic).
Becap-top., Becaplermin (Topical).
Bell-syst., Belladonna Alkaloids and Barbiturates (Systemic).
Bentir-syst., Bentiromide (Systemic).
Bentoq-top., Bentoquatam (Topical).
Benzod-syst., Benzodiazepines (Systemic).
Benzon-syst., Benzonatate (Systemic).
BenzP-top., Benzoyl Peroxide (Topical).
BenzyB-top., Benzyl Benzoate (Topical).
Ber-intloc., Beractant (Intratracheal-Local).
BetBA-oph., Beta-adrenergic Blocking Agents (Ophthalmic).
BetBA-syst., Beta-adrenergic Blocking Agents (Systemic).
BetBAT-syst., Beta-adrenergic Blocking Agents and Thiazide Diuretics (Systemic).
Betcar-syst., Beta-carotene (Systemic).
Bet-syst., Betaine (Systemic).
Beth-syst., Bethanechol (Systemic).
Bevac-syst., Bevacizumab (Systemic).
Bex-syst., Bexarotene (Systemic).
Bex-top., Bexarotene (Topical).
Bim-oph., Bimatoprost (Ophthalmic).
Biot-syst., Biotin (Systemic).
BisS-orloc., Bismuth Subsalicylate (Oral-Local).
BisSMT-syst., Bismuth Subsalicylate, Metronidazole, and Tetracycline — For H. pylori (Systemic).
Biv-syst., Bivalirudin (Systemic).

Medicines (Abbreviations)

Bleo-syst., Bleomycin (Systemic).
Bort-syst., Bortezomib (Systemic).
Bos-syst., Bosentan (Systemic).
BotA-parloc., Botulinum Toxin Type A (Parenteral-Local).
BotB-parloc., Botulinum Toxin Type B (Parenteral-Local).
Bret-syst., Bretylium (Systemic).
Brim-oph., Brimonidine (Ophthalmic).
Brin-oph., Brinzolamide (Ophthalmic).
Bromf-oph., Bromfenac (Ophthalmic).
Bromo-syst., Bromocriptine (Systemic).
BronA-inhloc., Bronchodilators, Adrenergic (Inhalation-Local).
BronA-syst., Bronchodilators, Adrenergic (Systemic).
BronT-syst., Bronchodilators, Theophylline (Systemic).
Buc-syst., Buclizine (Systemic).
Bupre-syst., Buprenorphine (Systemic).
Bupro-syst., Bupropion (Systemic).
Buse-syst., Buserelin (Systemic).
Busp-syst., Buspirone (Systemic).
Busu-syst., Busulfan (Systemic).
Buten-top., Butenafine (Topical).
Butor-nasyst., Butorphanol (Nasal-Systemic).

Letter C

Cab-syst., Cabergoline (Systemic)
Caff-syst., Caffeine (Systemic)
Calam-top., Calamine (Topical)
Calcip-top., Calcipotriene (Topical)
Calcit-nassyst., Calcitonin (Nasal-Systemic)
Calcit-syst., Calcitonin (Systemic)
CalcA-syst., Calcium Acetate (Systemic)
CalcCBA-syst., Calcium Channel Blocking Agents (Systemic)
CalcS-syst., Calcium Supplements (Systemic)
Calf-intloc., Calfactant (Intratracheal-Local)
Cand-syst., Candesartan (Systemic)
CandH-syst., Candesartan and Hydrochlorothiazide (Systemic)
Capec-syst., Capecitabine (Systemic)
Capr-syst., Capreomycin (Systemic)
Caps-top., Capsaicin (Topical)
Carbac-oph., Carbachol (Ophthalmic)
Carbam-syst., Carbamazepine (Systemic)
Carbet-syst., Carbetocin (Systemic)
CarbidL-syst., Carbidopa and Levodopa (Systemic)

Medicines (Abbreviations)

CarbidEL-syst., Carbidopa, Entacapone and Levodopa (Systemic)
CarboE-syst., Carbohydrates and Electrolytes (Systemic)
CarbolF-top., Carbol-Fuchsin (Topical)
CarbonAI-syst., Carbonic Anhydrase Inhibitors (Systemic)
Carbopl-syst., Carboplatin (Systemic)
Carbopr-syst., Carboprost (Systemic)
Carm-imploc., Carmustine (Implantation-Local)
Carm-syst., Carmustine (Systemic)
Carv-syst., Carvedilol (Systemic)
Casp-syst., Caspofungin (Systemic)
Cefd-syst., Cefditoren (Systemic)
Cefu-syst., Cefuroxime (Systemic)
Cele-syst., Celecoxib (Systemic)
CellSP-syst., Cellulose Sodium Phosphate (Systemic)
Ceph-syst., Cephalosporins (Systemic)
CetiP-syst., Cetirizine and Pseudoephedrine (Systemic)
Cetr-syst., Cetorelix (Systemic)
Cetux-syst., Cetuximab (Systemic)
Cev-syst., Cevimeline (Systemic)
CharA-orloc., Charcoal, Activated (Oral-Local)
Chlop-syst., Chlophedianol (Systemic)
ChlH-syst., Chloral Hydrate (Systemic)
Chloramb-syst., Chlorambucil (Systemic)
Chloramp-oph., Chloramphenicol (Ophthalmic)
Chloramp-ot., Chloramphenicol (Otic)
Chloramp-syst., Chloramphenicol (Systemic)
ChlordA-syst., Chlordiazepoxide and Amitriptyline (Systemic)
Chlorh-imploc., Chlorhexidine (Implantation-Local)
Chlorh-mucloc., Chlorhexidine (Mucosal-Local)
Chloroq-syst., Chloroquine (Systemic)
Chlorox-top., Chloroxine (Topical)
CholAO-syst., Cholecystographic Agents, Oral (Systemic)
Cholec-syst., Cholecystokinin (Systemic)
CholVac-syst., Cholera Vaccine (Systemic)
Cholest-orloc., Cholestyramine (Oral-Local)
Chond-imploc., Chondrocytes, Autologous Cultured (Implantation-Local)
ChorioA-syst., Choriogonadotropin Alfa (Systemic)
ChorioG-syst., Chorionic Gonadotropin (Systemic)
Chr-syst., Chromium Supplements (Systemic)
Chym-parloc., Chymopapain (Parenteral-Local)
Cicl-top., Ciclopirox (Topical)
Cid-syst., Cidofovir (Systemic)
Cil-syst., Cilostazol (Systemic)
Cinac-syst., Cinacalcet (Systemic)
Cinox-syst., Cinoxacin (Systemic)

Medicines (Abbreviations)

Cip-oph., Ciprofloxacin (Ophthalmic)
CipD-ot., Ciprofloxacin and Dexamethasone (Otic)
Cisap-syst., Cisapride (Systemic)
Cisat-syst., Cisatracurium (Systemic)
Cisp-syst., Cisplatin (Systemic)
Cital-syst., Citalopram (Systemic)
Citra-syst., Citrates (Systemic)
CitAGM-mucloc., Citric Acid, Glucono-delta-lactone, and Magnesium (Mucosal-Local)
Clad-syst., Cladribine (Systemic)
Clar-syst., Clarithromycin (Systemic)
Clind-syst., Clindamycin (Systemic)
Clind-top., Clindamycin (Topical)
Clind-vag., Clindamycin (Vaginal)
Clio-top., Clioquinol (Topical)
ClioH-top., Clioquinol and Hydrocortisone (Topical)
Clod-syst., Clodronate (Systemic)
Clofar-syst., Clofarabine (Systemic)
Clofaz-syst., Clofazimine (Systemic)
Clofib-syst., Clofibrate (Systemic)
Clom-syst., Clomiphene (Systemic)
Clon-parloc., Clonidine (Parenteral-Local)
Clon-syst., Clonidine (Systemic)
ClonC-syst., Clonidine and Chlorthalidone (Systemic)
Clop-syst., Clopidogrel (Systemic)
Clot-orloc., Clotrimazole (Oral-Local)
Clot-top., Clotrimazole (Topical)
ClotB-top., Clotrimazole and Betamethasone (Topical)
Cloz-syst., Clozapine (Systemic)
CoaT-top., Coal Tar (Topical)
Coc-mucloc., Cocaine (Mucosal-Local)
Colc-syst., Colchicine (Systemic)
Colesev-orloc., Colesevelam (Oral-Local)
Colest-orloc., Colestipol (Oral-Local)
Colf-intloc., Colfosceril, Cetyl Alcohol, and Tyloxapol (Intratracheal-Local)
Colis-ot., Colistin, Neomycin, and Hydrocortisone (Otic)
ColSF-syst., Colony Stimulating Factors (Systemic)
ConjE-syst., Conjugated Estrogens and Medroxyprogesterone For Ovarian Hormone Therapy (OHT) (Systemic)
Cop-syst., Copper Supplements (Systemic)
CortO-systdia., Corticorelin Ovine (Systemic-Diagnostic)
Cortic-inhloc., Corticosteroids (Inhalation-Local)
Cortic-nas., Corticosteroids (Nasal)
Cortic-oph., Corticosteroids (Ophthalmic)
Cortic-ot., Corticosteroids (Otic)
Cortic-rec., Corticosteroids (Rectal)

Medicines (Abbreviations)

Cortic-top., Corticosteroids (Topical)
CorticA-ot., Corticosteroids and Acetic Acid (Otic)
CorticG-syst., Corticosteroids Glucocorticoid Effects (Systemic)
Corticot-syst., Corticotropin (Systemic)
Cos-syst., Cosyntropin (Systemic)
CouCol-syst., Cough/Cold Combinations (Systemic)
Crom-inhloc., Cromolyn (Inhalation-Local)
Crom-nas., Cromolyn (Nasal)
Crom-oph., Cromolyn (Ophthalmic)
Crom-systorloc., Cromolyn (Systemic/Oral-Local)
Crot-top., Crotamiton (Topical)
Cycla-syst., Cyclandelate (Systemic)
Cycli-syst., Cyclizine (Systemic)
Cyclob-syst., Cyclobenzaprine (Systemic)
Cyclope-oph., Cyclopentolate (Ophthalmic)
Cycloph-syst., Cyclophosphamide (Systemic)
Cyclos-syst., Cycloserine (Systemic)
Cyclosp-oph., Cyclosporine (Ophthalmic)
Cyclosp-syst., Cyclosporine (Systemic)
Cyp-syst., Cyproterone (Systemic)
Cys-syst., Cysteamine (Systemic)
Cyt-syst., Cytarabine (Systemic)
CytL-int., Cytarabine, Liposomal (Intrathecal)

Letter D

Dac-syst., Dacarbazine (Systemic)
Dacli-syst., Daclizumab (Systemic)
Dacti-syst., Dactinomycin (Systemic)
Dal-syst., Dalteparin (Systemic)
Danap-syst., Danaparoid (Systemic)
Danaz-syst., Danazol (Systemic)
Dant-syst., Dantrolene (Systemic)
Dapi-oph., Dapiprazole (Ophthalmic)
Daps-syst., Dapsone (Systemic)
Daps-top., Dapsone (Topical)
Dapt-syst., Daptomycin (Systemic)
Darb-syst., Darbepoetin Alfa (Systemic)
Darif-syst., Darifenacin (Systemic)
Dau-syst., Daunorubicin (Systemic)
DauL-syst., Daunorubicin, Liposomal (Systemic)
DecAn-syst., Decongestants and Analgesics (Systemic)
Def-syst., Deferoxamine (Systemic)

Medicines (Abbreviations)

Del-syst., Delavirdine (Systemic)
Den-syst., Denileukin Diftitox (Systemic)
Desf-inhsyst., Desflurane (Inhalation-Systemic)
Desl-syst., Desloratadine (Systemic)
DeslP-syst., Desloratadine and Pseudoephedrine (Systemic)
Desm-syst., Desmopressin (Systemic)
Dexmed-syst., Dexmedetomidine (Systemic)
Dexmet-syst., Dexmethylphenidate (Systemic)
Dexr-syst., Dexrazoxane (Systemic)
Dext-syst., Dextromethorphan (Systemic)
DiatI-loc., Diatrizoate and Iodipamide (Local)
Diat-loc., Diatrizoates (Local)
Diat-syst., Diatrizoates (Systemic)
Diaz-orsyst., Diazoxide (Oral-Systemic)
Diaz-parsyst., Diazoxide (Parenteral-Systemic)
Dic-top., Diclofenac (Topical)
DicM-syst., Diclofenac and Misoprostol (Systemic)
Did-syst., Didanosine (Systemic)
Dietc-syst., Diethylcarbamazine (Systemic)
Diet-top., Diethyltoluamide (Topical)
Dif-syst., Difenoxin and Atropine (Systemic)
DigitG-syst., Digitalis Glycosides (Systemic)
Digo-syst., Digoxin Immune Fab (Ovine) (Systemic)
Dihy-nassyst., Dihydroergotamine (Nasal-Systemic)
Dimer-syst., Dimercaprol (Systemic)
Dimet-mucloc., Dimethyl Sulfoxide (Mucosal-Local)
Dinopst-parloc., Dinoprost (Parenteral-Local)
Dinopne-cervag., Dinoprostone (Cervical/Vaginal)
Dipheni-syst., Diphenidol (Systemic)
DiphenoA-syst., Diphenoxylate and Atropine (Systemic)
DiphtTT-syst., Diphtheria and Tetanus Toxoids (Systemic)
DiphtTTH-syst., Diphtheria and Tetanus Toxoids and Acellular Pertussis Adsorbed and Hepatitis B (Recombinant) and Inactivated Poliovirus Vaccine Combined (Systemic)
DiphtTTPV-syst., Diphtheria and Tetanus Toxoids and Pertussis Vaccine Adsorbed (Systemic)
DiphtTTPVH-syst., Diphtheria And Tetanus Toxoids And Pertussis Vaccine Adsorbed And Haemophilus B Conjugate Vaccine (Systemic)
DiphtA-syst., Diphtheria Antitoxin (Systemic)
Dipi-oph., Dipivefrin (Ophthalmic)
Dipy-syst., Dipyrindamole (Systemic)
DipyA-syst., Dipyrindamole and Aspirin (Systemic)
Dir-syst., Dirithromycin (Systemic)
Diso-syst., Disopyramide (Systemic)
Disu-syst., Disulfiram (Systemic)
DiuL-syst., Diuretics, Loop (Systemic)

Medicines (Abbreviations)

DiuP-syst., Diuretics, Potassium-sparing (Systemic)
DiuPH-syst., Diuretics, Potassium-sparing, and Hydrochlorothiazide (Systemic)
DiuT-syst., Diuretics, Thiazide (Systemic)
Docet-syst., Docetaxel (Systemic)
Doco-top., Docosanol (Topical)
Dof-syst., Dofetilide (Systemic)
Dol-syst., Dolasetron (Systemic)
Dom-syst., Domperidone (Systemic)
Don-syst., Donepezil (Systemic)
Dorn-inhloc., Dornase Alfa (Inhalation-Local)
Dorz-oph., Dorzolamide (Ophthalmic)
DorzT-oph., Dorzolamide and Timolol (Ophthalmic)
Doxac-syst., Doxacurium (Systemic)
Doxap-syst., Doxapram (Systemic)
Doxaz-syst., Doxazosin (Systemic)
Doxep-top., Doxepin (Topical)
Doxor-syst., Doxorubicin (Systemic)
DoxorL-syst., Doxorubicin, Liposomal (Systemic)
Doxyc-mucloc., Doxycycline (Mucosal-Local)
Doxyc-syst., Doxycycline (Systemic)
DoxycD-syst., Doxycycline For Dental Use (Systemic)
Dron-syst., Dronabinol (Systemic)
Drop-syst., Droperidol (Systemic)
DrosE-syst., Drospirenone and Estradiol (Systemic)
DrosEE-syst., Drospirenone and Ethinyl Estradiol (Systemic)
Drot-syst., Drotrecogin Alfa (Systemic)
Dul-syst., Duloxetine (Systemic)
Dut-syst., Dutasteride (Systemic)
Dyp-syst., Dyphylline (Systemic)

Letter E

Eco-top., Econazole (Topical)
EdC-syst., Edetate Calcium Disodium (Systemic)
EdD-oph., Edetate Disodium (Ophthalmic)
EdD-syst., Edetate Disodium (Systemic)
Edr-syst., Edrophonium (Systemic)
EdrA-syst., Edrophonium and Atropine (Systemic)
Efal-syst., Efalizumab (Systemic)
Efav-syst., Efavirenz (Systemic)
Efl-syst., Eflornithine (Systemic)
Efl-top., Eflornithine (Topical)
Ele-syst., Eletriptan (Systemic)

Medicines (Abbreviations)

Eme-oph., Emedastine (Ophthalmic)
Emt-syst., Emtricitabine (Systemic)
EmtT-syst., Emtricitabine and Tenofovir (Systemic)
EnaF-syst., Enalapril and Felodipine (Systemic)
Enf-syst., Enfuvirtide (Systemic)
Eno-syst., Enoxaparin (Systemic)
Enta-syst., Entacapone (Systemic)
Entec-syst., Entecavir (Systemic)
EnterNF-syst., Enteral Nutrition Formulas (Systemic)
Epina-oph., Epinastine (Ophthalmic)
Epine-oph., Epinephrine (Ophthalmic)
Epir-syst., Epirubicin (Systemic)
Epl-syst., Eplerenone (Systemic)
Epo-syst., Epoetin (Systemic)
Epop-syst., Epoprostenol (Systemic)
Epr-syst., Eprosartan (Systemic)
Ept-syst., Eptifibatide (Systemic)
ErgolM-syst., Ergoloid Mesylates (Systemic)
Ergon-syst., Ergonovine (Systemic)
Erl-syst., Erlotinib (Systemic)
Ert-syst., Ertapenem (Systemic)
Eryth-oph., Erythromycin (Ophthalmic)
Eryth-top., Erythromycin (Topical)
ErythBP-top., Erythromycin and Benzoyl Peroxide (Topical)
ErythS-syst., Erythromycin and Sulfisoxazole (Systemic)
Eryts-syst., Erythromycins (Systemic)
Esc-syst., Escitalopram (Systemic)
Esm-syst., Esmolol (Systemic)
Eso-syst., Esomeprazole (Systemic)
Estra-syst., Estramustine (Systemic)
Estro-syst., Estrogens (Systemic)
Estro-vag., Estrogens (Vaginal)
EstroP-syst., Estrogens and Progestins (Ovarian Hormone Therapy) (Systemic)
EstroPO-syst., Estrogens and Progestins Oral Contraceptives (Systemic)
Esz-syst., Eszopiclone (Systemic)
Etan-syst., Etanercept (Systemic)
Etham-syst., Ethambutol (Systemic)
Ethan-parloc., Ethanolamine Oleate (Parenteral-Local)
Ethc-syst., Ethchlorvynol (Systemic)
Ethi-syst., Ethionamide (Systemic)
Etid-syst., Etidronate (Systemic)
Etom-syst., Etomidate (Systemic)
Eton-vag., Etonogestrel and Ethinyl Estradiol (Vaginal)
Etop-syst., Etoposide (Systemic)
Exem-syst., Exemestane (Systemic)

Medicines (Abbreviations)

Exen-syst., Exenatide (Systemic)
Ezet-syst., Ezetimibe (Systemic)
EzetS-syst., Ezetimibe and Simvastatin (Systemic)

Letter F

FacIX-syst., Factor IX (Systemic)
FacVIIa-syst., Factor VIIa (Systemic)
Fam-syst., Fanciclovir (Systemic)
FatE-syst., Fat Emulsions (Systemic)
Fel-syst., Felbamate (Systemic)
Fenof-syst., Fenofibrate (Systemic)
Fenol-syst., Fenoldopam (Systemic)
Fent-syst., Fentanyl (Systemic)
Fent-trsyst., Fentanyl (Transdermal-Systemic)
FentD-syst., Fentanyl Derivatives (Systemic)
Ferr-syst., Ferrous Citrate Fe 59 (Systemic)
Feru-syst., Ferumoxides (Systemic)
Fex-syst., Fexofenadine (Systemic)
FexP-syst., Fexofenadine and Pseudoephedrine (Systemic)
Fin-syst., Finasteride (Systemic)
Flavoc-syst., Flavocoxid (Systemic)
Flavox-syst., Flavoxate (Systemic)
Flec-syst., Flecainide (Systemic)
Flox-syst., Floxuridine (Systemic)
Fluc-syst., Flucytosine (Systemic)
Fluda-syst., Fludarabine (Systemic)
Fludro-syst., Fludrocortisone (Systemic)
Flum-syst., Flumazenil (Systemic)
Fluorq-syst., Fluoroquinolones (Systemic)
Fluoru-syst., Fluorouracil (Systemic)
Fluoru-top., Fluorouracil (Topical)
Fluox-syst., Fluoxetine (Systemic)
Flut-inhloc., Fluticasone (Inhalation-Local)
Flut-nas., Fluticasone (Nasal)
FlutS-inhloc., Fluticasone and Salmeterol (Inhalation-Local)
Fluv-syst., Fluvoxamine (Systemic)
Fol-syst., Folic Acid (Systemic)
FollitA-syst., Follitropin Alfa (Systemic)
FollitB-syst., Follitropin Beta (Systemic)
Fome-syst., Fomepizole (Systemic)
Fomi-parloc., Fomivirsen (Parenteral-Local)
Fon-syst., Fondaparinux (Systemic)

Medicines (Abbreviations)

For-inhloc., Formoterol (Inhalation-Local)
Fosam-syst., Fosamprenavir (Systemic)
Fosc-syst., Foscarnet (Systemic)
Fosf-syst., Fosfomycin (Systemic)
Fram-oph., Framycetin (Ophthalmic)
Fro-syst., Frovatriptan (Systemic)
FrucDP-orloc., Fructose, Dextrose, and Phosphoric Acid (Oral-Local)
Ful-syst., Fulvestrant (Systemic)
Fur-orloc., Furazolidone (Oral-Local)
Fus-syst., Fusidic acid (Systemic)

Letter G

Gab-syst., Gabapentin (Systemic)
Gadob-syst., Gadobenate (Systemic)
Gadod-syst., Gadodiamide (Systemic)
Gadop-syst., Gadopentetate (Systemic)
Gadot-syst., Gadoteridol (Systemic)
Gadov-syst., Gadoversetamide (Systemic)
Gala-syst., Galantamine (Systemic)
GalliC-syst., Gallium Citrate Ga 67 (Systemic)
GalliN-syst., Gallium Nitrate (Systemic)
Gals-syst., Galsulfase (Systemic)
Ganc-impoph., Ganciclovir (Implantation-Ophthalmic)
Ganc-syst., Ganciclovir (Systemic)
Ganir-syst., Ganirelix (Systemic)
Gat-oph., Gatifloxacin (Ophthalmic)
Gef-syst., Gefitinib (Systemic)
Gemc-syst., Gemcitabine (Systemic)
Gemf-syst., Gemfibrozil (Systemic)
Gemif-syst., Gemifloxacin (Systemic)
Gemt-syst., Gemtuzumab Ozogamicin (Systemic)
Genta-oph., Gentamicin (Ophthalmic)
Genta-ot., Gentamicin (Otic)
Genta-top., Gentamicin (Topical)
GentiV-top., Gentian Violet (Topical)
GentiV-vag., Gentian Violet (Vaginal)
Gla-syst., Glatiramer Acetate (Systemic)
Glim-syst., Glimepiride (Systemic)
GlipM-syst., Glipizide and Metformin (Systemic)
Gluc-syst., Glucagon (Systemic)
Glut-syst., Glutamine (Systemic)
GlybM-syst., Glyburide and Metformin (Systemic)

Medicines (Abbreviations)

Glyc-syst., Glycerin (Systemic)
Gold-syst., Gold Compounds (Systemic)
Gon-syst., Gonadorelin (Systemic)
Gos-syst., Goserelin (Systemic)
Gra-syst., Granisetron (Systemic)
Gri-syst., Griseofulvin (Systemic)
GroH-syst., Growth Hormone (Systemic)
Guai-syst., Guaifenesin (Systemic)
Guanab-syst., Guanabenz (Systemic)
Guanad-syst., Guanadrel (Systemic)
Guane-syst., Guanethidine (Systemic)
Guanf-syst., Guanfacine (Systemic)

Letter H

HaeC-syst., Haemophilus b Conjugate Vaccine (Systemic)
HaeP-syst., Haemophilus b Polysaccharide Vaccine (Systemic)
Hal-syst., Haloperidol (Systemic)
Hepar-syst., Heparin (Systemic)
HepatAVI-syst., Hepatitis A Vaccine Inactivated (Systemic)
HepatAVIHB-syst., Hepatitis A Virus Vaccine Inactivated and Hepatitis B Virus Vaccine Recombinant (Systemic)
HepatBIG-syst., Hepatitis B Immune Globulin (Human) (Systemic)
HepatBVR-syst., Hepatitis B Vaccine Recombinant (Systemic)
Hist-syst., Histamine (Systemic)
HistH2-syst., Histamine H2-receptor Antagonists (Systemic)
Histr-syst., Histrelin (Systemic)
HMG-syst., HMG-CoA Reductase Inhibitors (Systemic)
Hom-oph., Homatropine (Ophthalmic)
HyalS-syst., Hyaluronate Sodium (Systemic)
HyalSD-syst., Hyaluronate Sodium Derivative (Systemic)
Hyalur-parloc., Hyaluronidase (Parenteral-Local)
Hydra-syst., Hydralazine (Systemic)
HydraH-syst., Hydralazine and Hydrochlorothiazide (Systemic)
HydroI-syst., Hydrocodone and Ibuprofen (Systemic)
HydroxT-oph., Hydroxyamphetamine and Tropicamide (Ophthalmic)
Hydxcy-syst., Hydroxychloroquine (Systemic)
HydxcypC-oph., Hydroxypropyl Cellulose (Ophthalmic)
HydxcypM-oph., Hydroxypropyl Methylcellulose (Ophthalmic)
HydxcypM-parloc., Hydroxypropyl Methylcellulose (Parenteral-Local)
Hydxyu-syst., Hydroxyurea (Systemic)

Letter I

Iba-syst., Ibandronate (Systemic)
Ibr-syst., Ibritumomab Tiuxetan (Systemic)
IbupO-syst., Ibuprofen and Oxycodone (Systemic)
Ibut-syst., Ibutilide (Systemic)
Ida-syst., Idarubicin (Systemic)
Ido-oph., Idoxuridine (Ophthalmic)
Ifo-syst., Ifosfamide (Systemic)
Ilo-inh., Iloprost (Inhalation)
Ima-syst., Imatinib (Systemic)
Imig-syst., Imiglucerase (Systemic)
ImipC-syst., Imipenem and Cilastatin (Systemic)
Imiq-top., Imiquimod (Topical)
Imm-syst., Immune Globulin Intravenous (Human) (Systemic)
Ina-syst., Inamrinone (Systemic)
Inda-syst., Indapamide (Systemic)
Indin-syst., Indinavir (Systemic)
IndiuC-syst., Indium In 111 Capromab Pendetide (Systemic)
IndiuO-syst., Indium In 111 Oxyquinoline (Systemic)
IndiuP-syst., Indium In 111 Pentetate (Systemic)
IndiuPt-syst., Indium In 111 Pentetreotide (Systemic)
IndiuS-syst., Indium In 111 Satumomab Pendetide (Systemic)
Indo-syst., Indomethacin For Patent Ductus Arteriosus (Systemic)
Infa-syst., Infant Formulas (Systemic)
Infli-syst., Infliximab (Systemic)
Influ-syst., Influenza Virus Vaccine (Systemic)
Ins-syst., Insulin (Systemic)
InsA-syst., Insulin Aspart (Systemic)
InsD-syst., Insulin Detemir (Systemic)
InsGla-syst., Insulin Glargine (Systemic)
InsGlu-syst., Insulin Glulisine (Systemic)
InsL-syst., Insulin Lispro (Systemic)
IntA1-syst., Interferon Alfacon-1 (Systemic)
IntB1a-syst., Interferon, Beta-1a (Systemic)
IntB1b-syst., Interferon, Beta-1b (Systemic)
IntG-syst., Interferon, Gamma (Systemic)
IntA-syst., Interferons, Alpha (Systemic)
Inu-syst., Inulin (Systemic)
Iob-systdia., Iobenguane, Radioiodinated (Systemic—Diagnostic)
Iob-systthe., Iobenguane, Radioiodinated (Systemic—Therapeutic)
Iod-top., Iodine (Topical)
IodS-syst., Iodine, Strong (Systemic)
Iodip-syst., Iodipamide (Systemic)

Medicines (Abbreviations)

Iodix-syst., Iodixanol (Systemic)
Iodoh123-syst., Iodohippurate Sodium I 123 (Systemic)
Iodoh131-syst., Iodohippurate Sodium I 131 (Systemic)
Iodoq-orloc., Iodoquinol (Oral-Local)
Iof-syst., Iofetamine I 123 (Systemic)
Ioh-loc., Iohexol (Local)
Ioh-syst., Iohexol (Systemic)
Iopa-syst., Iopamidol (Systemic)
Iopr-syst., Iopromide (Systemic)
Iot-loc., Iothalamate (Local)
Iot-syst., Iothalamate (Systemic)
Iov-syst., Ioversol (Systemic)
Ioxa-loc., Ioxaglate (Local)
Ioxa-syst., Ioxaglate (Systemic)
Ioxi-syst., Ioxilan (Systemic)
Ipe-orloc., Ipecac (Oral-Local)
Ipr-inhloc., Ipratropium (Inhalation-Local)
Ipr-nas., Ipratropium (Nasal)
IprA-inhloc., Ipratropium and Albuterol (Inhalation-Local)
Irb-syst., Irbesartan (Systemic)
Iri-syst., Irinotecan (Systemic)
Iron-syst., Iron Supplements (Systemic)
IsomDA-syst., Isometheptene, Dichloralphenazone, and Acetaminophen (Systemic)
Ison-syst., Isoniazid (Systemic)
Isot-syst., Isotretinoin (Systemic)
Isox-syst., Isoxsuprine (Systemic)
Ive-syst., Ivermectin (Systemic)

Letter J

JapV-syst., Japanese Encephalitis Virus Vaccine (Systemic)

Letter K

Kan-orloc., Kanamycin (Oral-Local)
KaoP-orloc., Kaolin and Pectin (Oral-Local)
Keta-syst., Ketamine (Systemic)
Ketoc-top., Ketoconazole (Topical)
Ketor-oph., Ketorolac (Ophthalmic)
Ketor-syst., Ketorolac (Systemic)
Ketot-oph., Ketotifen (Ophthalmic)
Ketot-syst., Ketotifen (Systemic)

Kry-syst., Krypton Kr 81m (Systemic)

Letter L

Ltry-syst., L-Tryptophan (Systemic)
Lami-syst., Lamivudine (Systemic)
LamiZ-syst., Lamivudine and Zidovudine (Systemic)
Lamo-syst., Lamotrigine (Systemic)
Lans-syst., Lansoprazole (Systemic)
Lant-orloc., Lanthanum (Oral-Local)
Lar-syst., Laronidase (Systemic)
Lat-oph., Latanoprost (Ophthalmic)
Lax-loc., Laxatives (Local)
Lef-syst., Leflunomide (Systemic)
Len-syst., Lenalidomide (Systemic)
Lep-syst., Lepirudin (Systemic)
Let-syst., Letrozole (Systemic)
Leuc-syst., Leucovorin (Systemic)
Leup-syst., Leuprolide (Systemic)
Leval-inhloc., Levalbuterol (Inhalation-Local)
Levam-syst., Levamisole (Systemic)
Leve-syst., Levetiracetam (Systemic)
Levoc-oph., Levocabastine (Ophthalmic)
Levoca-syst., Levocarnitine (Systemic)
Levod-syst., Levodopa (Systemic)
Levof-oph., Levofloxacin (Ophthalmic)
Levof-syst., Levofloxacin (Systemic)
Levom-syst., Levomethadyl (Systemic)
Lid-syst., Lidocaine (Systemic)
Lid-top., Lidocaine (Topical)
LidP-top., Lidocaine and Prilocaine (Topical)
Linc-syst., Lincomycin (Systemic)
Lind-top., Lindane (Topical)
Line-syst., Linezolid (Systemic)
Lit-syst., Lithium (Systemic)
Lod-oph., Lodoxamide (Ophthalmic)
Lom-syst., Lomustine (Systemic)
Lope-orloc., Loperamide (Oral-Local)
LopiR-syst., Lopinavir and Ritonavir (Systemic)
Lor-syst., Loracarbef (Systemic)
Los-syst., Losartan (Systemic)
LosH-syst., Losartan and Hydrochlorothiazide (Systemic)
Lot-oph., Loteprednol (Ophthalmic)

Medicines (Abbreviations)

LotT-oph., Loteprednol and Tobramycin (Ophthalmic)
Lox-syst., Loxapine (Systemic)
Lut-syst., Lutropin Alfa (Systemic)
Lym-syst., Lyme Disease Vaccine (Systemic)

Letter M

Maf-top., Mafenide (Topical)
MagS-syst., Magnesium Sulfate (Systemic)
MagSup-syst., Magnesium Supplements (Systemic)
Mal-top., Malathion (Topical)
Man-syst., Mangafodipir (Systemic)
MangS-syst., Manganese Supplements (Systemic)
Mann-syst., Mannitol (Systemic)
Map-syst., Maprotiline (Systemic)
MeaRV-syst., Measles and Rubella Virus Vaccine Live (Systemic)
MeaV-syst., Measles Virus Vaccine Live (Systemic)
MeaMRV-syst., Measles, Mumps, and Rubella Virus Vaccine Live (Systemic)
Meb-syst., Mebendazole (Systemic)
Mecam-syst., Mecamylamine (Systemic)
Mecas-syst., Mecasermin (Systemic)
Mech-syst., Mechlorethamine (Systemic)
Mech-top., Mechlorethamine (Topical)
Mecl-syst., Meclizine (Systemic)
MedE-syst., Medroxyprogesterone and Estradiol (Systemic)
Mef-syst., Mefloquine (Systemic)
Meg-syst., Meglumine Antimoniate (Systemic)
Melo-syst., Meloxicam (Systemic)
Melp-syst., Melphalan (Systemic)
Mem-syst., Memantine (Systemic)
MeniPV-syst., Meningococcal Polysaccharide Vaccine (Systemic)
MeniVDC-syst., Meningococcal Vaccine, Diphtheria Conjugate (Systemic)
Meno-syst., Menotropins (Systemic)
Mep-syst., Meprobamate (Systemic)
MepA-syst., Meprobamate and Aspirin (Systemic)
MeqT-top., Mequinol and Tretinoin (Topical)
Merc-syst., Mercaptopurine (Systemic)
Mero-syst., Meropenem (Systemic)
Mesa-orloc., Mesalamine (Oral-Local)
Mesa-reloc., Mesalamine (Rectal-Local)
Mesn-syst., Mesna (Systemic)
Metf-syst., Metformin (Systemic)
MetfP-syst., Metformin and Pioglitazone (Systemic)

Medicines (Abbreviations)

Methe-syst., Methenamine (Systemic)
MethotC-syst., Methotrexate For Cancer (Systemic)
MethotNC-syst., Methotrexate For Noncancerous Conditions (Systemic)
Methox-exsyst., Methoxsalen (Extracorporeal-Systemic)
Methox-syst., Methoxsalen (Systemic)
Methox-top., Methoxsalen (Topical)
Methy-syst., Methyldopa (Systemic)
MethyTD-syst., Methyldopa and Thiazide Diuretics (Systemic)
MethylB-syst., Methylene Blue (Systemic)
Methyler-syst., Methylergonovine (Systemic)
Methylp-syst., Methylphenidate (Systemic)
Methys-syst., Methysergide (Systemic)
Meto-syst., Metoclopramide (Systemic)
Metro-syst., Metronidazole (Systemic)
Metro-top., Metronidazole (Topical)
Metro-vag., Metronidazole (Vaginal)
Metyra-syst., Metyrapone (Systemic)
Metyro-syst., Metyrosine (Systemic)
Mex-syst., Mexiletine (Systemic)
Mica-syst., Micafungin (Systemic)
Mico-top., Miconazole (Topical)
Mida-syst., Midazolam (Systemic)
Mido-syst., Midodrine (Systemic)
Mif-syst., Mifepristone (Systemic)
Migli-syst., Miglitol (Systemic)
Miglu-syst., Miglustat (Systemic)
Mil-syst., Milrinone (Systemic)
Minoc-mucloc., Minocycline (Mucosal-Local)
Minox-syst., Minoxidil (Systemic)
Minox-top., Minoxidil (Topical)
Mir-syst., Mirtazapine (Systemic)
Mis-syst., Misoprostol (Systemic)
Mitom-syst., Mitomycin (Systemic)
Mitot-syst., Mitotane (Systemic)
Mitox-syst., Mitoxantrone (Systemic)
Miv-syst., Mivacurium (Systemic)
Moc-syst., Moclobemide (Systemic)
Mod-syst., Modafinil (Systemic)
Moe-syst., Moexipril (Systemic)
MoeH-syst., Moexipril and Hydrochlorothiazide (Systemic)
Moli-syst., Molindone (Systemic)
Moly-syst., Molybdenum Supplements (Systemic)
Mom-inhloc., Mometasone (Inhalation-Local)
Mom-nas., Mometasone (Nasal)
Mono-loc., Monoctanoin (Local)

Medicines (Abbreviations)

Mont-syst., Montelukast (Systemic)
Mor-syst., Moricizine (Systemic)
Mox-oph., Moxifloxacin (Ophthalmic)
Mum-syst., Mumps Virus Vaccine Live (Systemic)
Mup-nas., Mupirocin (Nasal)
Mup-top., Mupirocin (Topical)
Mur-syst., Muromonab-CD3 (Systemic)
Myc-syst., Mycophenolate (Systemic)

Letter N

Nab-syst., Nabilone (Systemic)
Nad-syst., Nadroparin (Systemic)
Nafa-syst., Nafarelin (Systemic)
Naft-top., Naftifine (Topical)
Nali-syst., Nalidixic Acid (Systemic)
Nalm-syst., Nalmefene (Systemic)
Nalo-syst., Naloxone (Systemic)
Nalt-syst., Naltrexone (Systemic)
Nap-oph., Naphazoline (Ophthalmic)
Nar-syst., Naratriptan (Systemic)
Natal-syst., Natalizumab (Systemic)
Natam-oph., Natamycin (Ophthalmic)
Nate-syst., Nateglinide (Systemic)
Ned-inhloc., Nedocromil (Inhalation-Local)
Ned-oph., Nedocromil (Ophthalmic)
Nef-syst., Nefazodone (Systemic)
Nel-syst., Nelfinavir (Systemic)
Neo-oph., Neomycin (Ophthalmic)
Neo-orloc., Neomycin (Oral-Local)
Neo-top., Neomycin (Topical)
NeoP-top., Neomycin and Polymyxin B (Topical)
NeoPB-oph., Neomycin, Polymyxin B, and Bacitracin (Ophthalmic)
NeoPB-top., Neomycin, Polymyxin B, and Bacitracin (Topical)
NeoPG-oph., Neomycin, Polymyxin B, and Gramicidin (Ophthalmic)
NeoPH-oph., Neomycin, Polymyxin B, and Hydrocortisone (Ophthalmic)
NeoPh-ot., Neomycin, Polymyxin B, and Hydrocortisone (Otic)
Nep-oph., Nepafenac (Ophthalmic)
Nes-syst., Nesiritide (Systemic)
Neu-syst., Neuromuscular Blocking Agents (Systemic)
Nev-syst., Nevirapine (Systemic)
Nia-syst., Niacin (Systemic)
NiaL-syst., Niacin and Lovastatin (Systemic)

Medicines (Abbreviations)

Nicl-orloc., Niclosamide (Oral-Local)
Nico-inhsyst., Nicotine (Inhalation-Systemic)
Nico-nas., Nicotine (Nasal)
Nico-syst., Nicotine (Systemic)
Nis-syst., Nisoldipine (Systemic)
Nita-syst., Nitazoxanide (Systemic)
Niti-syst., Nitisinone (Systemic)
Nitra-syst., Nitrates (Systemic)
Nitri-inhloc., Nitric Oxide (Inhalation-Local)
Nitro-syst., Nitrofurantoin (Systemic)
Nitrofz-top., Nitrofurazone (Topical)
Nitrop-syst., Nitroprusside (Systemic)
NoreE-syst., Norelgestromin and Ethinyl Estradiol (Systemic)
Norf-oph., Norfloxacin (Ophthalmic)
Nyl-syst., Nylidrin (Systemic)
Nys-orloc., Nystatin (Oral-Local)
Nys-top., Nystatin (Topical)
Nys-vag., Nystatin (Vaginal)
NysT-top., Nystatin and Triamcinolone (Topical)

Letter O

Oct-syst., Octreotide (Systemic)
OfI-oph., Ofloxacin (Ophthalmic)
OfI-ot., Ofloxacin (Otic)
Ola-syst., Olanzapine (Systemic)
Olm-syst., Olmesartan (Systemic)
OlmH-syst., Olmesartan and Hydrochlorothiazide (Systemic)
Olo-oph., Olopatadine (Ophthalmic)
Ols-orloc., Olsalazine (Oral-Local)
Oma-syst., Omalizumab (Systemic)
Omeg-syst., Omega-3-Acid Ethyl Esters (Systemic)
Omep-syst., Omeprazole (Systemic)
Ond-syst., Ondansetron (Systemic)
Opi-syst., Opioid (Narcotic) Analgesics (Systemic)
OpiAc-syst., Opioid (Narcotic) Analgesics and Acetaminophen (Systemic)
OpiAs-syst., Opioid (Narcotic) Analgesics and Aspirin (Systemic)
Opr-syst., Oprelvekin (Systemic)
Orl-orloc., Orlistat (Oral-Local)
OrpA-syst., Orphenadrine and Aspirin (Systemic)
Ose-syst., Oseltamivir (Systemic)
Oxa-syst., Oxaliplatin (Systemic)
Oxc-syst., Oxcarbazepine (Systemic)

Medicines (Abbreviations)

Oxi-top., Oxiconazole (Topical)
OxtG-syst., Oxtriphylline and Guaifenesin (Systemic)
Oxyb-syst., Oxybutynin (Systemic)
Oxym-nas., Oxymetazoline (Nasal)
Oxym-oph., Oxymetazoline (Ophthalmic)
Oxyt-syst., Oxytocin (Systemic)

Letter P

Pac-syst., Paclitaxel (Systemic)
PacP-syst., Paclitaxel Protein-Bound (Systemic)
Palif-syst., Palifermin (Systemic)
Paliv-syst., Palivizumab (Systemic)
Palo-syst., Palonosetron (Systemic)
Pam-syst., Pamidronate (Systemic)
Panc-syst., Pancrelipase (Systemic)
Pantop-syst., Pantoprazole (Systemic)
Pantot-syst., Pantothenic Acid (Systemic)
Pap-int., Papaverine (Intracavernosal)
Pap-syst., Papaverine (Systemic)
Para-syst., Paraldehyde (Systemic)
Pare-syst., Paregoric (Systemic)
Paro-syst., Paroxetine (Systemic)
Pegad-syst., Pegademase (Systemic)
Pegas-syst., Pegaspargase (Systemic)
Pegf-syst., Pegfilgrastim (Systemic)
PegiA2a-syst., Peginterferon Alfa-2a (Systemic)
PegiA2b-syst., Peginterferon Alfa-2b (Systemic)
Pegv-syst., Pegvisomant (Systemic)
Peme-syst., Pemetrexed (Systemic)
Pemi-oph., Pemirolast (Ophthalmic)
Pemo-syst., Pemoline (Systemic)
Penc-top., Penciclovir (Topical)
Penic-syst., Penicillamine (Systemic)
Penicil-syst., Penicillins (Systemic)
PenicilB-syst., Penicillins and Beta-Lactamase Inhibitors (Systemic)
Penta-inh., Pentamidine (Inhalation)
Penta-syst., Pentamidine (Systemic)
PenteC-syst., Pentetate Calcium Trisodium (Systemic)
PenteZ-syst., Pentetate Zinc Trisodium (Systemic)
Pentosa-syst., Pentosan (Systemic)
Pentost-syst., Pentostatin (Systemic)
Pentox-syst., Pentoxifylline (Systemic)

Medicines (Abbreviations)

Perf-orloc., Perflubron (Oral-Local)
Perg-syst., Pergolide (Systemic)
Perm-top., Permethrin (Topical)
PerpA-syst., Perphenazine and Amitriptyline (Systemic)
Phena-syst., Phenazopyridine (Systemic)
Phenol-syst., Phenolsulfonphthalein (Systemic)
Phenot-syst., Phenothiazines (Systemic)
Phenox-syst., Phenoxybenzamine (Systemic)
Phent-int., Phentolamine (Intracavernosal)
Phent-syst., Phentolamine (Systemic)
Pheny-nas., Phenylephrine (Nasal)
Pheny-oph., Phenylephrine (Ophthalmic)
Pho-syst., Phosphates (Systemic)
Phy-oph., Physostigmine (Ophthalmic)
Phy-syst., Physostigmine (Systemic)
Pil-oph., Pilocarpine (Ophthalmic)
Pil-syst., Pilocarpine (Systemic)
Pime-top., Pimecrolimus (Topical)
Pimo-syst., Pimozide (Systemic)
Pio-syst., Pioglitazone (Systemic)
Pip-syst., Piperazine (Systemic)
Pli-syst., Plicamycin (Systemic)
PneC-syst., Pneumococcal Conjugate Vaccine (Systemic)
PneV-syst., Pneumococcal Vaccine Polyvalent (Systemic)
Podof-top., Podofilox (Topical)
Podop-top., Podophyllum (Topical)
Poli-syst., Poliovirus Vaccine (Systemic)
PoliO-syst., Poliovirus Vaccine Live Oral (Systemic)
PolyE-loc., Polyethylene Glycol and Electrolytes (Local)
Por-syst., Porfimer (Systemic)
PotI-syst., Potassium Iodide (Systemic)
PotS-syst., Potassium Supplements (Systemic)
Pral-syst., Pralidoxime (Systemic)
Prami-syst., Pramipexole (Systemic)
Praml-syst., Pramlintide (Systemic)
Prazi-syst., Praziquantel (Systemic)
Prazo-syst., Prazosin (Systemic)
PrazoP-syst., Prazosin and Polythiazide (Systemic)
Pre-syst., Pregabalin (Systemic)
Prima-syst., Primaquine (Systemic)
Primi-syst., Primidone (Systemic)
Probe-syst., Probenecid (Systemic)
ProbeC-syst., Probenecid and Colchicine (Systemic)
Probu-syst., Probucol (Systemic)
Procai-syst., Procainamide (Systemic)

Medicines (Abbreviations)

Procar-syst., Procarbazine (Systemic)
Proge-syst., Progestins (Systemic)
Progu-syst., Proguanil (Systemic)
Propa-syst., Propafenone (Systemic)
Propo-syst., Propofol (Systemic)
Prota-syst., Protamine (Systemic)
Proti-syst., Protirelin (Systemic)
Pru-orloc., Prussian Blue (Oral-Local)
Pse-syst., Pseudoephedrine (Systemic)
Pyran-orloc., Pyrantel (Oral-Local)
Pyraz-syst., Pyrazinamide (Systemic)
PyreP-top., Pyrethrins and Piperonyl Butoxide (Topical)
Pyridos-syst., Pyridostigmine For Military Combat Medical Use (Systemic)
Pyridox-syst., Pyridoxine (Systemic)
Pyrin-syst., Pyrimethamine (Systemic)
Pyrit-top., Pyrithione (Topical)
Pyrv-orloc., Pyrvinium (Oral-Local)

Letter Q

Que-syst., Quetiapine (Systemic)
Quid-syst., Quinidine (Systemic)
Quin-syst., Quinine (Systemic)
QuinuD-syst., Quinupristin and Dalfopristin (Systemic)

Letter R

Rabe-syst., Rabeprazole (Systemic)
RabiI-syst., Rabies Immune Globulin (Systemic)
RabiV-syst., Rabies Vaccine (Systemic)
Rac-syst., Racemethionine (Systemic)
Rad-syst., Radioiodinated Albumin (Systemic)
Ralo-syst., Raloxifene (Systemic)
Ralt-syst., Raltitrexed (Systemic)
Ram-syst., Ramelteon (Systemic)
Ras-syst., Rasburicase (Systemic)
Rau-syst., Rauwolfia Alkaloids (Systemic)
RauT-syst., Rauwolfia Alkaloids and Thiazide Diuretics (Systemic)
Rem-syst., Remifentanyl (Systemic)
Rep-syst., Repaglinide (Systemic)
ReseHH-syst., Reserpine, Hydralazine, and Hydrochlorothiazide (Systemic)
Reso-top., Resorcinol (Topical)

Medicines (Abbreviations)

ResoS-top., Resorcinol and Sulfur (Topical)
Resp-syst., Respiratory Syncytial Virus Immune Globulin Intravenous (Systemic)
Ret-syst., Reteplase, Recombinant (Systemic)
RhO-syst., Rh O(D) Immune Globulin (Systemic)
Riba-syst., Ribavirin (Systemic)
RibaI-syst., Ribavirin and Interferon Alfa-2b, Recombinant (Systemic)
Ribo-syst., Riboflavin (Systemic)
Rifab-syst., Rifabutin (Systemic)
Rifam-syst., Rifampin (Systemic)
RifamI-syst., Rifampin and Isoniazid (Systemic)
RifamIP-syst., Rifampin, Isoniazid, and Pyrazinamide (Systemic)
Rifap-syst., Rifapentine (Systemic)
Rifax-orloc., Rifaximin (Oral-Local)
Ril-syst., Riluzole (Systemic)
Rima-syst., Rimantadine (Systemic)
Rime-oph., Rimexolone (Ophthalmic)
Rise-syst., Risedronate (Systemic)
Risp-syst., Risperidone (Systemic)
Ritod-syst., Ritodrine (Systemic)
Riton-syst., Ritonavir (Systemic)
Ritu-syst., Rituximab (Systemic)
Riv-syst., Rivastigmine (Systemic)
Riz-syst., Rizatriptan (Systemic)
Roc-syst., Rocuronium (Systemic)
Rof-syst., Rofecoxib (Systemic)
Ropin-syst., Ropinirole (Systemic)
Ropiv-parloc., Ropivacaine (Parenteral-Local)
Rosi-syst., Rosiglitazone (Systemic)
RosiM-syst., Rosiglitazone and Metformin (Systemic)
Rosu-syst., Rosuvastatin (Systemic)
RubeM-syst., Rubella and Mumps Virus Vaccine Live (Systemic)
RubeV-syst., Rubella Virus Vaccine Live (Systemic)
Rubi-syst., Rubidium Rb 82 (Systemic)

Letter S

Sac-syst., Sacrosidase (Systemic)
Sal-syst., Salicylates (Systemic)
SalA-top., Salicylic Acid (Topical)
SalAS-top., Salicylic Acid and Sulfur (Topical)
SalASC-top., Salicylic Acid, Sulfur, and Coal Tar (Topical)
Sam-syst., Samarium Sm 153 Lexidronam (Systemic)
Saq-syst., Saquinavir (Systemic)

Medicines (Abbreviations)

Sco-oph., Scopolamine (Ophthalmic)
Seleg-syst., Selegiline (Systemic)
SelenS-top., Selenium Sulfide (Topical)
SelenSup-syst., Selenium Supplements (Systemic)
Serm-syst., Sermorelin (Systemic)
Serta-top., Sertaconazole (Topical)
Sertr-syst., Sertraline (Systemic)
Seve-orloc., Sevelamer (Oral-Local)
Sevo-inhsyst., Sevoflurane (Inhalation-Systemic)
Sib-syst., Sibutramine (Systemic)
Sild-syst., Sildenafil (Systemic)
Silv-top., Silver Sulfadiazine (Topical)
Sim-orloc., Simethicone (Oral-Local)
Sin-syst., Sincalide (Systemic)
Sir-syst., Sirolimus (Systemic)
Ske-syst., Skeletal Muscle Relaxants (Systemic)
SodBeSP-syst., Sodium Benzoate and Sodium Phenylacetate (Systemic)
SodBi-syst., Sodium Bicarbonate (Systemic)
SodC-oph., Sodium Chloride (Ophthalmic)
SodC-parloc., Sodium Chloride (Parenteral-Local)
SodCr51-syst., Sodium Chromate Cr 51 (Systemic)
SodF-syst., Sodium Fluoride (Systemic)
SodI-syst., Sodium Iodide (Systemic)
SodI123-syst., Sodium Iodide I 123 (Systemic)
SodI131-systdia., Sodium Iodide I 131 (Systemic—Diagnostic)
SodI131-systthe., Sodium Iodide I 131 (Systemic—Therapeutic)
SodN-syst., Sodium Nitrite (Systemic)
SodO-syst., Sodium Oxybate (Systemic)
SodPhe-syst., Sodium Phenylbutyrate (Systemic)
SodPho-syst., Sodium Phosphate P 32 (Systemic)
SodPol-loc., Sodium Polystyrene Sulfonate (Local)
SodTe-syst., Sodium Tetradecyl Sulfate (Systemic)
SodTh-syst., Sodium Thiosulfate (Systemic)
Sol-syst., Solifenacin (Systemic)
Sor-syst., Sorafenib (Systemic)
Spa-syst., Sparfloxacin (Systemic)
Spec-syst., Spectinomycin (Systemic)
Sper-vag., Spermicides (Vaginal)
Spi-syst., Spiramycin (Systemic)
Sta-syst., Stavudine (Systemic)
Stre-syst., Streptozocin (Systemic)
Stro-syst., Strontium Chloride SR 89 (Systemic)
Succ-syst., Succimer (Systemic)
Sucr-orloc., Sucralfate (Oral-Local)
Sulc-top., Sulconazole (Topical)

Medicines (Abbreviations)

SulfadP-syst., Sulfadoxine and Pyrimethamine (Systemic)
Sulfap-syst., Sulfapyridine (Systemic)
Sulfas-syst., Sulfasalazine (Systemic)
Sulfi-syst., Sulfinpyrazone (Systemic)
Sulfo-oph., Sulfonamides (Ophthalmic)
Sulfo-syst., Sulfonamides (Systemic)
Sulfo-vag., Sulfonamides (Vaginal)
SulfoP-syst., Sulfonamides and Phenazopyridine (Systemic)
SulfoT-syst., Sulfonamides and Trimethoprim (Systemic)
Sulfu-top., Sulfur (Topical)
Sum-syst., Sumatriptan (Systemic)
Sun-top., Sunscreen Agents (Topical)
Sur-syst., Suramin (Systemic)
Sym-parsyst., Sympathomimetic Agents—Cardiovascular Use (Parenteral-Systemic)

Letter T

Tacri-syst., Tacrine (Systemic)
Tacro-syst., Tacrolimus (Systemic)
Tacro-top., Tacrolimus (Topical)
Tad-syst., Tadalafil (Systemic)
Tal-intloc., Talc (Intrapleural-Local)
Tamo-syst., Tamoxifen (Systemic)
Tams-syst., Tamsulosin (Systemic)
Taz-top., Tazarotene (Topical)
TecF-syst., Technetium (99m Tc) Fanolesomab (Systemic)
TecPh-syst., Technetium Tc 99m (Pyro- and trimeta-) Phosphates (Systemic)
TecAl-syst., Technetium Tc 99m Albumin (Systemic)
TecAlA-syst., Technetium Tc 99m Albumin Aggregated (Systemic)
TecAp-syst., Technetium Tc 99m Apcitide (Systemic)
TecAr-syst., Technetium Tc 99m Arcitumomab (Systemic)
TecB-syst., Technetium Tc 99m Bicisate (Systemic)
TecD-syst., Technetium Tc 99m Disofenin (Systemic)
TecE-syst., Technetium Tc 99m Exametazime (Systemic)
TecMeb-syst., Technetium Tc 99m Mebrofenin (Systemic)
TecMed-syst., Technetium Tc 99m Medronate (Systemic)
TecMer-syst., Technetium Tc 99m Mertiatide (Systemic)
TecO-syst., Technetium Tc 99m Oxidronate (Systemic)
TecPe-syst., Technetium Tc 99m Pentetate (Systemic)
TecPy-syst., Technetium Tc 99m Pyrophosphate (Systemic)
TecSe-syst., Technetium Tc 99m Sestamibi (Systemic)
TecSuc-syst., Technetium Tc 99m Succimer (Systemic)
TecSul-syst., Technetium Tc 99m Sulfur Colloid (Systemic)

Medicines (Abbreviations)

TecTeb-syst., Technetium Tc 99m Teboroxime (Systemic)
TecTet-syst., Technetium Tc 99m Tetrofosmin (Systemic)
Teg-syst., Tegaserod (Systemic)
Teli-syst., Telithromycin (Systemic)
Telm-syst., Telmisartan (Systemic)
TelmH-syst., Telmisartan and Hydrochlorothiazide (Systemic)
Tem-syst., Temozolomide (Systemic)
Tene-syst., Tenecteplase (Systemic)
Teni-syst., Teniposide (Systemic)
Teno-syst., Tenofovir (Systemic)
Tera-syst., Terazosin (Systemic)
Terb-syst., Terbinafine (Systemic)
Terb-top., Terbinafine (Topical)
Teri-syst., Teriparatide (Systemic)
Testol-syst., Testolactone (Systemic)
Testos-syst., Testosterone (Systemic)
TetaIG-syst., Tetanus Immune Globulin (Systemic)
TetaT-syst., Tetanus Toxoid (Systemic)
TetrPF-mucloc., Tetracycline Periodontal Fibers (Mucosal-Local)
Tetr-oph., Tetracyclines (Ophthalmic)
Tetr-syst., Tetracyclines (Systemic)
Tetr-top., Tetracyclines (Topical)
Thali-syst., Thalidomide (Systemic)
Thall-syst., Thallous Chloride Tl 201 (Systemic)
TheG-syst., Theophylline and Guaifenesin (Systemic)
TheEP-syst., Theophylline, Ephedrine, and Phenobarbital (Systemic)
Thiab-syst., Thiabendazole (Systemic)
Thiab-top., Thiabendazole (Topical)
Thiam-syst., Thiamine (Systemic)
Thie-syst., Thiethylperazine (Systemic)
Thiog-syst., Thioguanine (Systemic)
Thiot-syst., Thiotepa (Systemic)
Thiox-syst., Thioxanthenes (Systemic)
Thr-syst., Thrombolytic Agents (Systemic)
ThyH-syst., Thyroid Hormones (Systemic)
Thyr-syst., Thyrotropin (Systemic)
ThyrA-syst., Thyrotropin Alfa (Systemic)
Tia-syst., Tiagabine (Systemic)
Tic-syst., Ticlopidine (Systemic)
Til-syst., Tiludronate (Systemic)
Tini-syst., Tinidazole (Systemic)
Tinz-syst., Tinzaparin (Systemic)
Tioc-top., Tioconazole (Topical)
Tiop-syst., Tiopronin (Systemic)
Tiot-inhloc., Tiotropium (Inhalation-Local)

Medicines (Abbreviations)

Tir-syst., Tirofiban (Systemic)
Tiz-syst., Tizanidine (Systemic)
Tob-oph., Tobramycin (Ophthalmic)
TobD-oph., Tobramycin and Dexamethasone (Ophthalmic)
Toc-syst., Tocainide (Systemic)
Tola-parsyst., Tolazoline (Parenteral-Systemic)
Tolc-syst., Tolcapone (Systemic)
Toln-top., Tolnaftate (Topical)
Tolt-syst., Tolterodine (Systemic)
Topi-syst., Topiramate (Systemic)
Topo-syst., Topotecan (Systemic)
Tore-syst., Toremifene (Systemic)
Tors-syst., Torsemide (Systemic)
TosI-syst., Tositumomab and Iodine I 131 Tositumomab (Systemic)
Tram-syst., Tramadol (Systemic)
TramA-syst., Tramadol and Acetaminophen (Systemic)
Trand-syst., Trandolapril (Systemic)
TrandV-syst., Trandolapril and Verapamil (Systemic)
Trane-syst., Tranexamic Acid (Systemic)
Tras-syst., Trastuzumab (Systemic)
Trav-oph., Travoprost (Ophthalmic)
Traz-syst., Trazodone (Systemic)
Trep-syst., Treprostinil (Systemic)
Tret-syst., Tretinoin (Systemic)
Tret-top., Tretinoin (Topical)
Trie-syst., Trientine (Systemic)
Trif-oph., Trifluridine (Ophthalmic)
Trimetha-syst., Trimethaphan (Systemic)
Trimethob-syst., Trimethobenzamide (Systemic)
Trimethop-syst., Trimethoprim (Systemic)
Trimetr-syst., Trimetrexate (Systemic)
Trio-syst., Trioxsalen (Systemic)
Trip-syst., Triptorelin (Systemic)
Trop-oph., Tropicamide (Ophthalmic)
Tros-syst., Trospium (Systemic)
Trov-syst., Trovafloxacin (Systemic)
Tub-parloc., Tuberculin, Purified Protein Derivative (Parenteral-Local)
TypVI-parsyst., Typhoid Vaccine Inactivated (Parenteral-Systemic)
TypVL-syst., Typhoid Vaccine Live Oral (Systemic)
TypP-syst., Typhoid Vi Polysaccharide Vaccine (Systemic)

Letter U

Medicines (Abbreviations)

UndA-top., Undecylenic Acid, Compound (Topical)
Uno-oph., Unoprostone (Ophthalmic)
Ure-parloc., Urea (Parenteral-Local)
Ure-syst., Urea (Systemic)
UreC-syst., Urea C 14 (Systemic)
Uro-syst., Urofollitropin (Systemic)
Urs-syst., Ursodiol (Systemic)

Letter V

Vac-syst., Vaccinia Immune Globulin Intravenous (Human) (Systemic)
Vala-syst., Valacyclovir (Systemic)
Vald-syst., Valdecixib (Systemic)
Valg-syst., Valganciclovir (Systemic)
Valp-syst., Valproic Acid (Systemic)
Valr-mucloc., Valrubicin (Mucosal-Local)
Vals-syst., Valsartan (Systemic)
ValsH-syst., Valsartan and Hydrochlorothiazide (Systemic)
Van-orloc., Vancomycin (Oral-Local)
Van-syst., Vancomycin (Systemic)
Vard-syst., Vardenafil (Systemic)
Vari-syst., Varicella Virus Vaccine Live (Systemic)
Vasc-syst., Vascular Headache Suppressants, Ergot Derivative—containing (Systemic)
Vaso-syst., Vasopressin (Systemic)
Ven-syst., Venlafaxine (Systemic)
Ver-parloc., Verteporfin (Parenteral-Local)
Vid-oph., Vidarabine (Ophthalmic)
Vig-syst., Vigabatrin (Systemic)
Vinb-syst., Vinblastine (Systemic)
Vinc-syst., Vincristine (Systemic)
Vind-syst., Vindesine (Systemic)
Vino-syst., Vinorelbine (Systemic)
VitA-syst., Vitamin A (Systemic)
VitB12-syst., Vitamin B12 (Systemic)
VitDA-syst., Vitamin D and Analogs (Systemic)
VitE-syst., Vitamin E (Systemic)
VitK-syst., Vitamin K (Systemic)
VitMF-syst., Vitamins, Multiple, and Fluoride (Systemic)
Vor-syst., Voriconazole (Systemic)

Letter X

Medicines (Abbreviations)

Xen127-syst., Xenon Xe 127 (Systemic)
Xen133-syst., Xenon Xe 133 (Systemic)
Xyl-nas., Xylometazoline (Nasal)

Letter Y

Yel-syst., Yellow Fever Vaccine (Systemic)
Yoh-syst., Yohimbine (Systemic)

Letter Z

Zaf-syst., Zafirlukast (Systemic)
Zalc-syst., Zalcitabine (Systemic)
Zale-syst., Zaleplon (Systemic)
Zan-inhsyst., Zanamivir (Inhalation–Systemic)
Zic-syst., Ziconotide (Systemic)
Zid-syst., Zidovudine (Systemic)
Zil-syst., Zileuton (Systemic)
ZinS-syst., Zinc Supplements (Systemic)
Zip-syst., Ziprasidone (Systemic)
Zole-syst., Zoledronic Acid (Systemic)
Zolm-syst., Zolmitriptan (Systemic)
Zolp-syst., Zolpidem (Systemic)
Zon-syst., Zonisamide (Systemic)
Zop-syst., Zopiclone (Systemic)

Homeopathic Materia Medica of Modern Drugs

SCIENTIFIC PUBLICATIONS

**Homeopathic use of modern medicines: utilization
of the curative rebound effect**

**“Paradoxical strategy for treating chronic
diseases”: a therapeutic model used in homeopathy
for more than two centuries**

**New homeopathic medicines: use of modern drugs
according to the principle of similitude**

**Homeopathic use of modern drugs: therapeutic
application of the organism paradoxical reaction**

**‘New Homeopathic Medicines’ database: A project
to employ conventional drugs according to the
homeopathic method of treatment**

Other scientific publications

Homeopathic use of modern medicines: utilization of the curative rebound effect^{1,2}

Abstract

Homeopathy is a therapeutic method based on the application of the similitude principle, utilizing medicinal substances that produce effects that are similar to the symptoms being treated. In this process, the organism is stimulated to react against its own disturbances through a vital (paradoxical, secondary or homeostatic) reaction, oriented by the primary effect of the used drug. This effect should have properties that are similar to the symptom that is being treated. This secondary reaction of the organism to a medicinal stimulus is observed in hundreds of modern drugs, and is referred to as a rebound effect. In this study we propose the utilisation of modern drugs according to the principle of homeopathic cure, employing the rebound effect as a curative reaction. For that we suggest the compilation of a *Common Materia Medica* that would group all symptoms produced by the medications in human individuals (therapeutic, adverse and side effects), utilizing them, *a posteriori*, following a partial or total similitude, in minimal or ponderous doses. By doing that, we can take advantage of the numerous modern pharmacological compendiums, amplifying the spectrum of homeopathic cure with a wide range of new symptoms and medicines.

Introduction

The homeopathic model for treating diseases is based on fundamentals that are different from those used in conventional medicine, i.e., the principle of similitude, experimentation in healthy subjects, and infinitesimal doses.

This change in therapeutic paradigm began with Samuel Hahnemann who, based on reports and experiences of ancient physicians, began to observe that after the occurrence of the first effect stimulated by any medicine in the organic economy, there was an automatic counter reaction of the organism (secondary effect or vital reaction) opposing the original change. This secondary effect would annul the pharmacological perturbation, in an attempt to preserve the internal balance.

By proposing a therapeutic method that would stimulate this homeostatic reaction in a curative sense, Hahnemann began to utilize substances that had the capacity to stimulate

¹ Teixeira MZ. Homeopathic use of modern medicines: utilisation of the curative rebound effect. *Med Hypotheses*. 2003; 60(2): 276-283. Available at: [https://doi.org/10.1016/S0306-9877\(02\)00386-9](https://doi.org/10.1016/S0306-9877(02)00386-9)

² Teixeira MZ. Matéria médica comum: utilização homeopática da patogenesia dos fármacos modernos [Common materia medica: homeopathic use of modern allopathic drugs pathogenesis]. *Rev Homeopatia (AMHB)*. 1994; 4: 108-115. Available at: [ResearchGate](#)

symptoms similar to those that he wanted to cure (*similia similibus curentur*), initially utilizing ponderous doses and later decreasing them (to infinitesimal doses).

According to this principle of homeopathic cure (similitude principle), a drug that is capable of stimulating certain symptoms in a group of healthy subjects, is also capable of stimulating a reaction of the organism against the same symptoms in unhealthy subjects, producing a “symptomatic immunization”.

The symptoms (primary effects) that the drugs produced in healthy subjects, in addition to the records of intoxication and adverse effects observed with the use of those substances over the centuries (*Common Materia Medica*), gave rise to the *Homeopathic Materia Medica* [1,2]. This is the reference guide used to apply the therapeutic principle of similitude, offering the opportunity to choose, among the hundreds of studied drugs, the medication that would best cover the “totality of characteristic symptoms” of the patient.

In this article, we will discuss the homeopathic fundamentals as they apply to classic pharmacology, proposing a methodology to use modern drugs in accordance with the homeopathic principle of cure.

Material and Methods

A review study that attempts to confirm the validity of the principle of similitude (primary action and secondary reaction) in relation to modern drugs has to include pharmacological compendiums that clearly describe the organic alterations (symptoms) that these substances stimulate in unhealthy subjects (experimenter). Similarly, upon developing a *Common Materia Medica* for conventional drugs, all the internal balance disturbances caused by these drugs should be also included in this report, in order we can use the said drugs according to the law of similarity.

Therefore, in a pharmacological study of modern drugs, we will use papers mentioned in various Pharmacopoeias, reports on adverse drug effects found in other pharmacological compendiums, descriptions of the drug’s effects observed in hospital patients, and experiments and clinical studies performed and published in scientific journals [3-9].

In the first part of this study we will base the principle of similitude on the evidence of modern pharmacology, searching for a scientific validation of the homeopathic model by observing the stimulated symptoms caused by numerous classes of conventional drugs (primary drug effect and secondary effect or organism reaction) on human beings.

At a second stage we will suggest a methodology for the use of modern drugs according to the principle of homeopathic cure. We will discuss a methodology that partially utilizes the similitude principle, observing isolated symptoms, as well as a broader approach, using the sum of the symptoms that correspond to the sick individual (symptomatic totality).

Results

Similitude principle based on modern pharmacology

Supported by the careful observation of the effect of drugs on the human organism, Hahnemann discusses the principle of similitude in paragraphs 63-65 of *Organon of medicine* [10], systematizing the mechanism of drugs' action:

“Every agent that acts upon the vitality, every medicine, deranges more or less the vital force, and causes a certain alterations in the health of the individual for a longer or a shorter period. This is termed *primary action*. [...] To its action our vital force endeavors to oppose its own energy. This resistant action is a property, is indeed an automatic action of our life-preserving power, which goes by the name of *secondary action* or *counter-action*”. (*Organon*, paragraph 63)

Observing that this “secondary action” could be utilised as a curative reaction, as long as properly led, he proposed, in his therapeutic model, the utilisation of medicines that produce, in their primary action in the organism, symptoms similar to the natural disease. The purpose would be stimulating an organic reaction to annul the artificial disease, and, due to the similarity of the produced symptoms to those of the original disease, the original symptoms would also be neutralized. This observation led to the similitude principle: “every medicine that is capable of producing certain symptoms in healthy subjects is also capable of curing those same symptoms in sick individuals”.

Based on these findings, Hahnemann began to experiment with a variety of substances in individuals considered “healthy”, recording all new (primary) symptoms that appeared, and thus created the *Homeopathic Materia Medica* [11]. As he encountered patients with symptoms similar to the drugs he had experimented with, he would give these drugs to the sick individuals, attempting to produce a secondary and curative reaction of the organism, causing the elimination of the bothersome symptoms.

Therefore, the application of the homeopathic therapeutic principle involves the stimulation of a homeostatic and curative reaction. This is based on the fact that the primary action of the drug in healthy subjects was the production of symptoms that are similar to those that are present in the natural disease.

Bridging the gap between the similitude principle and modern pharmacology, we found numerous reports, in pharmacological compendiums as well as experiments and clinical studies published in scientific journals, all of them describing a secondary reaction of the organism to a primary drug stimulus, confirming the previously described theory [12,13]. This secondary reaction of the organism, in an attempt to maintain organic homeostasis, is called “rebound effect” or “paradoxical reaction” according to modern epistemology.

According to pharmacological concepts, the rebound symptom always shows itself with greater intensity than the originally suppressed symptom, occurring for a varying period of time (minutes, hours or weeks) after the suspension or discontinuation of the treatment and persisting for a varying period of time (minutes, hours or weeks) depending on individual characteristics (idiosyncrasies).

To illustrate this point, we can look at traditional drugs used for the treatment of **angina pectoris** (*amlodipine, beta-adrenoceptor blockers, calcium channel blockers, nitrates*), whose primary effect is the improvement of angina; after suspension of the drug, or in case of irregular treatment, a rebound effect of the organism is caused, which exacerbates the thoracic pain, in frequency as well as intensity, and in some cases the pain is not responsive to any type of therapy. Drugs utilised to control arterial **hypertension** (*central alpha2-adrenoceptor agonists, beta-adrenoceptor blockers, hidralazine, ACE inhibitors, MAO inhibitors, nitrates, prostaglandin A₁, sodium nitroprusside*) can awake a rebound arterial hypertension as a secondary reaction of the organism to the primary stimulus. **Antiarrhythmic** medications (*adenosine, amiodarone, beta-adrenoceptor blockers, calcium channel blockers, disopyramide, encainide, digitalis, flecainide, lidocaine, mexiletine, moricizine, procainamide, propafenone, quinidine, tocainide*) awake, after the interruption of treatment, exacerbation of initial arrhythmia. Drugs utilised for **hyperlipoproteinemia** (*clofibrate, colestipol, colestyramine, gemfibrozil, HMG-CoA reductase inhibitors, lipibrol*) tend to cause a rebound and significant increase in triglycerides and blood cholesterol. In the utilisation of psychiatric medications, **anxiolytics** (*barbiturates, benzodiazepines, buspirone, meprobamate*), **sedatives-hipnotics** (*barbiturate, bendodiazepine, morphine, promethazine, tetrahydrocannabinol, zopiclone*), CNS **stimulants** (*amphetamine, caffeine, cocaine, mazindol, methylphenidate*), **antidepressants** (*MAO inhibitors, tricyclics*), **antipsychotics** (*clozapine, phenothiazines, haloperidol, pimozide, thiethylperazine, thiothixene*), a reaction of the organism trying to maintain organic homeostasis can be observed, awaking symptoms opposite to those expected in their primary therapeutic utilisation and aggravating the initial condition. Neurological medicines utilised for their primary action as **anticonvulsants** (*barbiturates, carbamazepine, dione group, hydantoine group, paraldehyde, primidone, valproic acid*), **antidyskinetics** (*antidyskinetics, bromocriptine, carbidopa, levodopa, selegiline*), **relaxants of skeletal musculature** (*atracurium, baclofen, cyclobenzaprine, chlorzoxazone, dantrolene, methocarbamol, pancuronium, tubocurarine*), present exacerbation of initial symptoms, as a secondary reaction of the organism, or rebound phenomenon, after suspension of the medication. Drugs whose primary action is **antiinflammatory** (*corticosteroids, ibuprofen, indomethacin, paracetamol, salicylates*) induce a secondary response of the organism, increasing inflammation and the plasma concentration of mediators of inflammation. Drugs whose primary effect is **analgesic** (*caffeine, calcium channel blockers, clonidine, ergotamine, methysergide, opioids, salicylates*) present, as a paradoxical reaction, evident hyperalgesia. **Anticoagulant** drugs (*argatroban, bezafibrate, heparin, salicylates, warfarin*) utilised for their primary effect in the prophylaxis of blood thrombosis, cause thrombotic complications as a secondary or rebound effect. **Diuretics** (*furosemide, torasemide, triamterene*) utilised enantiopathically to decrease blood volume (swelling,

arterial hypertension, cardiac insufficiency, etc.), cause a rebound increase in the retention of sodium and potassium, increasing blood volume. Medicines utilised primarily as **antidyspeptics** (*antacids, H₂ receptor antagonists, misoprostol, sucralfate*) for the treatment of gastritis and gastroduodenal ulcers, cause, after an initial decline in acidity, a rebound increase in acidity potentially causing perforations of chronic gastroduodenal ulcers. **Broncodilators** (*adrenergic bronchodilators, sodium cromoglycate, epinephrine, ipratropium, nedocromil*) utilised in the treatment of bronchial asthma, can cause a worsening of the bronchospasms as a secondary response of the organism to suspension or discontinuation of treatment, sometimes of severe intensity and non responsive to any bronchodilating therapeutic. [12,13]

In summary, numerous other classes of drugs stimulate a organic homeostatic reaction (rebound phenomenon, secondary effect, or vital reaction): **antihypotensives** (*dextran, dopamine, metaraminol*), **cardiotonics** (*nitrates-nitroglycerin*), **anesthetics** (*alfentanil, halothane*), **antihistamines** (*azatadine, bromazepam, chlorphenamine, hydroxyzine, mepyramine, promethazine, triprolidine, etc.*), **antiemetics** (*bucizine, cyclizine, difenidol, phenothiazines*), **laxatives** (*hyperosmotics, mineral oil, salines, stimulants*), **constipators** (*opioids*), **intestinal antiinflammatories** (*mesalamine, olsalazine*), **nasal and ophthalmic decongestants** (*corticosteroids, sodium cromoglycate, ephedrine, phenylephrine, naphazoline, oxymetazoline, xylometazoline*), **antiglaucomatous** (*anticholinesterasics, antimuscarinics, anhydrasis carbonic inhibitors, miotics*), **antiseborrhea** (*selenium sulphide, UV irradiation*), **antipsoriasis** (*calcipotriene*), **antivitiligo** (*methoxsalen*), **antispasmodics** (*ritodrine*), **antilactation** (*dopamine agonists*), **antiosteoporosis** (*S-calcitonine*), **antirheumatics** (*ACTH, α -interferon, allopurinol, gold compoests, probenecide, sulfapyrazone*). [12]

These are some of the pharmacological evidences that support the homeopathic principle, where the automatic reaction of the organism is utilised to eliminate the pathological symptoms and stimulate internal equilibrium, thus presently confirming the observations made by Hahnemann more than 200 years ago.

Suggestions

Use of modern drugs assuming a partial similitude

Based on the previously cited information, we can utilize modern drugs according to a partial or principal similitude, utilizing the rebound phenomenon (paradoxical reaction) in a curative form, in other words, stimulating the organism to react against its own symptoms (*life-preserving power*). Some clinical studies have demonstrated the possibility of similar therapeutic method.

In this first therapeutic proposal, we would lead the organism's response to an isolated symptom that we wish to eliminate, utilizing a partial similitude, without awaking a global homeostatic reaction.

Utilising the secondary reaction of the organism as a form of treatment (homeopathic principle), the ovulation induction was tried in 34 women with anovulatory cycles and functional sterility, after the temporary administering of an oral biphasic contraceptive (*anteovin*) using the rebound effect that appears after the discontinuation of the treatment. Ovulation was induced in 9 cases (25%), 3 of them got pregnant, and 2 gave birth to healthy babies before the end of the study. The results show that the rebound effect may also be expected after the use of oral biphasic contraceptive as a satisfying aspect for the future fertility in women who stop taking contraceptives. [14-18]

In the treatment of prostate carcinoma (testosterone dependent), the withdrawal of treatment with androgens, utilizing bilateral orchiectomy, anti-androgens or GnRH analogues (LHRH), isolated or in association, promotes the regression of prostate cancerous cells by suppressing the testosterone serum levels. In the case of analogues of GnRH (*leuprorelin*), after an initial increase in LH and testosterone levels, a secondary curative effect (paradoxical reaction) is observed, that is the androgenic suppression through the desensitization of the hypophysis and/or down-regulation. [19-22]

The *salicylates*, tested in healthy or unhealthy subjects in classic pharmacological doses, awake as a primary effect the property of "platelet anti-aggregate", and are used in the prophylactic treatment of thrombosis and thromboembolism. After suspension of the medication, a secondary (rebound) effect is observed in this platelet function, with a rebound increase in platelet aggregation, potentially causing the formation of rebound thrombosis and thromboembolism. In studies where infinitesimal doses of salicylates were administered to healthy individuals, these data were confirmed, as they stimulated a secondary (rebound) effect of increasing the platelet aggregation, showing similarity between the pharmacology of ponderous and infinitesimal substances, even though the molecules did not exist in the dynamized medication. Considering these facts, we can utilize dynamized aspirin (infinitesimal doses) in cases of hemorrhage and bleeding, to stimulate a curative rebound effect. [23-28]

Cytostatic agents like (*plubagina*, *azatioprina*, *colchicina*, *methotrexate*, *etc.*) that produce immunosuppressant as their primary effect, awake, when utilised in minimal doses (picogram, fentogram), immunostimulation as a secondary (rebound) effect [29,30,31]. Why not using these substances, in infinitesimal doses, in an attempt to stimulate the immune system of immunodeficient individuals?

We could use hypertension agents (*dextran*, *dopamine*, *metaraminol*), in infinitesimal doses, in hypertensive patients, expecting a hypotensive curative rebound reaction. The opposite, in other words, of the utilisation of minimal doses of hypotensive agents (*central alpha2-adrenoceptor agonists*, *beta-adrenoceptor blockers*, *nitrates*, *sodium nitroprusside*,

etc.) in patients with hypovolemic shock, with the intention of stimulating a rebound hypervolemic, could also be tested. [32,33,34,35,36]

Medicines used as inhibitors of postpartum lactation (*dopamine agonists*) present as secondary effect rebound lactation, and can be used homeopathically to stimulate the lactation in women without galactorrhea. [37,38,39]

Illustrating the therapy by similitude using physiological stimuli, without the use of drugs, where the goal is the balance of organic functions via a paradoxical reaction, we can cite the *labyrinthine rehabilitation*, utilised in the treatment of peripheral vestibular syndromes. Using specific multi-sensorial exercises, that cause a vertiginous state (habituation or primary effect), the resulted physiological reactions can recuperate the spatial orientation and the static and dynamic equilibrium (compensation or secondary effect). This process of adaptation, where a substitution of the information generated in the damaged labyrinth takes place (multi-sensorial *inputs*), represents a sensorial-motor relearning, mobilized by a combination of CNS's integrated structures (*outputs* of the system). [40,41]

Based on these examples, we can use numerous modern medicines with the intent of awaking a curative rebound effect of the organism, as long as we use a substance which invokes in a human experimenter (primary effect) the same symptom that is meant to be eliminated in the sick individual.

The utilisation of medicines in infinitesimal doses (ultra-dilution) would minimize the negative primary effect, thus avoiding the aggravations of the original symptoms of the disease, without harming the secondary (curative) effect of the organism whose purpose is to annul the initial symptom. Using infinitesimal doses (dynamized medication) of poisonous substances like arsenic, lead, mercury, etc., the homeopathy is able to stimulate a vital reaction against the primary symptoms produced by these drugs (similar to the symptoms of the sick individual), without causing the phenomenon of intoxication that are associated with the utilisation of ponderous doses of these substances.

Use of modern drugs according to global similitude (symptomatic totality)

If our objective is to stimulate a broad homeostatic reaction, achieving a curative global reaction that will mobilize various physiological systems of the organism (psycho, neural, immune, endocrine, metabolic), we should use global similitude, considering the sum of the individual symptoms.

For any given case, among the diverse modern medicines, we should choose the drug that will awake, in healthy individuals, the greatest number of characteristic symptoms of the sick individual. In this way, we will induce an organic response against the various symptoms that characterize the sickness, mobilizing a paradoxical reaction to the various physiological systems involved in the disease process.

Similarly to classic homeopathy, that has related in *Homeopathic Materia Medica* the diverse symptoms caused by homeopathic medicines in human experimenters in ponderous (intoxication) or infinitesimal (pathogenic experimentation) doses, we can compile all the primary effects (use indications; adverse and side effects) of modern drugs in a *Common Materia Medica*. This is done by organizing them according to either an anatomic division or a division of the diverse symptoms, organs, and organic functions (Mind, Head, Eye, Ear, Nose, Mouth, Stomach, Abdomen, Urinary, Genitalia, Respiration, Chest, Back, Extremities, Skin, Sleep, Fever, Generalities, etc.), creating a reference for the pharmacological properties (primary actions) of each substance studied, that can be utilised according to the principle of similitude (secondary reaction).

As a research source, we can use the diverse Pharmacopoeias, as well as other pharmacological compendiums that accurately describe the effects of medications in the healthy and sick human body, rating these symptoms according to frequency and importance (incidence more or less frequent; incidence rare; long-term use), which will give priority to the selection among various drugs that produce the same symptom, in the same way that we choose a classic homeopathic medicine.

To facilitate the comparison between a patient's symptoms and the symptoms of the various drugs described in the *Common Materia Medica*, searching for the similarity between the two, we could create a *Repertory of the Common Materia Medica*, that would work as a dictionary or index of symptoms (primary effects) of the various medicines studied, and could be divided according to the diverse anatomic regions or organic systems, similarly to the *Repertory of the Homeopathic Materia Medica*.

With this consultative instrument, we could choose the medicine that covers the greatest number of characteristic symptoms of that patient, using that drug in infinitesimal doses (dynamized medicine), with the intention of awaking a curative rebound effect on the organism.

We could further expand this research carrying out experiments in healthy individuals, following the protocols of homeopathic pathogenic experimentation, observing all classes of symptoms caused, as well as their modalities (laterality, timing, regions, sensations, types, irradiation, etc.), in order to work with the totality of most characteristic symptoms to each patient.

As an example, we cite the study of the primary effects caused by the *penicillin* in human subjects, according to *The United States Pharmacopoeia Dispensing Information - USPDI* [3], where a broad range of a variety of symptoms is observed:

- a) Incidence more frequent: gastrointestinal reactions; headache; oral and vaginal candidiasis;
- b) Incidence less frequent: allergic reactions; specifically anaphylaxis; exfoliating dermatitis; serum sickness (skin rash, joint pain, fever); skin rash, hives or itching;

c) Incidence rare: clostridium difficile colitis; hepatotoxicity; interstitial nephritis; leukopenia or neutropenia; mental disturbances (anxiety; confusion; agitation or combativeness; depression; seizures; hallucinations; expressed fear of impending death); platelet dysfunction or thrombocytopenia; seizures.

In the case of a patient who presents with allergic reactions or other concomitant symptoms such as headache, exfoliating dermatitis, anxiety, depression, expressed fear of impending death (a symptom characteristic of high homeopathic hierarchy), etc., the use of dynamized penicillin (infinitesimal doses) would be a homeopathic therapeutic, according to the principle of global similitude, considering the totality of the symptoms.

With this model of homeopathic use of modern drugs, employing the advances of modern diagnostic evaluation (clinical, radiological, laboratorial, anatomic-pathological, etc.), we will increase the diversity of symptoms and diagnoses that can be utilised according to the similitude principle, characteristics that were not observed in the homeopathic pathogenic experiment, and that are described in modern drug studies, such as: anaphylactoid reaction, hemolytic anemia, agranulocytosis, leukopenia, neutropenia, diabetes mellitus, Parkinson syndrome, etc.

Discussion

With the aforementioned references, we have attempted to fundament the therapeutic similitude principle as it relates to modern pharmacology, showing that after a drug's initial primary action, whose active ingredient modifies the balance of the system, the organism has a secondary reaction, in which it tries to negate this disturbance, in an attempt to safeguard its internal homeostasis.

Therefore, we can guide this rebound phenomenon in a curative direction, administering a medication that produces symptoms similar to those of the natural sickness that you wish to combat, stimulating the organism to react against these disturbances using its internal curative mechanisms.

In this case, the drug, which awakes symptoms similar to those of the sickness, serves only to orient the correct manner in which this homeostatic reaction should occur, blocking the automatic and instinctive responses of the organism which would have damaged the affected organic system even more.

Although the majority of the studies that demonstrate the existence of a rebound phenomenon with modern drugs have been performed with ponderous doses, we believe that this paradoxical reaction could also occur with infinitesimal doses of the medication, as long as the "information" of that substance is incorporated in the metabolism of the susceptible individual, awaking a vital response contrary to the initial stimulus. As we know, with strong doses (intoxication), the susceptible individual (idiosyncrasy) is

surpassed, in a way that all the subjects experimented from the same species will perceive and react to the stimulus.

With respect to the homeopathic validity of using ponderous and repeated doses related in the experiments mentioned in this article, we recall that Hahnemann also utilised these doses during a phase of his homeopathic practice, in treatments and in pathogenic experiments, as long as the principle of similitude was observed. The dynamization process (dilution following vigorous agitation) emerged in an attempt to minimize the aggravations of the strong doses, to awake the power of the substances that remained hidden in their natural state, and also to impede that the secondary effects (rebound effects) are mixed with the primary effects of the pathogenic experiment.

By utilizing ponderous doses in experimenting with the substances, we miss “all the richness of their powers”, that remains hidden in their brute state, and is awakened through the dynamization process. We also recall that a large part of the symptoms included in the *Homeopathic Materia Medica* is the result of drug intoxication reports and is constantly used in homeopathic practice, not being differentiated from the others.

Another possible doubt a reader may have is the validity of data collected in the experiment with sick subjects, as opposed to experimentation in healthy subjects, which Hahnemann considered as the ideal model. We would point out that regarding some of the drugs mentioned in the initial study, experiments were performed in healthy individuals in which a rebound effect was similar to the effect observed in sick individuals using the same drug.

Even though experimenting with healthy individuals is imperative in order to clearly and precisely check which symptoms are caused by substances, Hahnemann himself performed the experiments of many of the medications contained in *Chronic Diseases* on chronic patients under treatment; as Richard Hughes reports in the translation of that same book [42]. This is also true concerning a multitude of symptoms included in the *Homeopathic Materia Medica*, found in reports on intoxication and cures in the past.

Following Hahnemann, we can utilize reports on the surge of symptoms in sick individuals (adverse, side effects) as an evidence of the primary symptoms of the drugs, as long as they are “new occurrences”. In other words, we can do it by separating the pre-existing symptoms from the disturbances that surge after the ingestion of the medication.

Conclusion

Primarily, we have attempted to shed light on the action mechanism of homeopathic treatment as it applies to modern pharmacology. We based the analogy on the relationship between the *secondary effect* or *curative vital reaction*, desired in the use of the similitude principle, and the *rebound effect* or *paradoxical reaction* observed after the utilisation of numerous pharmacological substances.

Applying a partial similitude, we can awake a curative response of the organism with the use of modern medicines, as long as we choose a substance with an evident primary effect similar to the disturbance we wish to eliminate, either with ponderous or infinitesimal doses.

In order to obtain a broader homeostatic response, we suggest the use of global similitude, utilizing a medication that, due to its pharmacological properties, causes a range of effects that are similar to the totality of the symptoms of the sick individual. In order to use this curative method, we should follow the steps taken by Hahnemann when he developed homeopathy, creating a *Common Materia Medica* and a *Repertory of Common Materia Medica* with the primary effects (use indication; side and adverse effects) of modern medicines that will serve as an instrument to help choosing the most appropriate substance for each case.

By doing that, we will amplify the homeopathic therapeutic options, utilizing observations and pharmacological studies performed in the last decades that endorse the homeopathic use of modern medicines. On the other hand, we hope to awaken an interest in research centers to perform experiments following the proposed technique, increasing scientific awareness regarding homeopathic fundamentals.

Furthermore, we hope that this fundament of homeopathic concepts, as they can be applied to concepts of conventional medicine, will stimulate a greater proximity between the two models of treatment, increasing the spectrum of the role of medicine in the future and providing new therapeutic strategies.

References

1. Hahnemann S. *Materia Medica Pura: examination of the sources of the common materia medica*. New Delhi: B. Jain Publishers, 1994, vol. II, p 5-29.
2. Hahnemann S. *Organon of medicine*. 6th Ed. New Delhi: B. Jain Publishers, 1991; §110-112.
3. The United States Pharmacopoeia Dispensing Information. The United States Pharmacopoeial Convention Inc.: Mack Printing Co., Easton, Pa, 2000.
4. American Hospital Formulary Service. American Society of Hospital Pharmacists. Bethesda, Md., 2000.
5. Purfitt K, Martindale WH. *The complete drug reference*. 32nd Ed. London: The Pharmaceutical Press, 1999.
6. The British Pharmacopoeia. London: Stationery Office, 1999.
7. Physicians' Desk Reference. 52nd Ed. Montvale: Medical Economics Company, 1998.
8. European pharmacopoeia. 3rd Ed. Strasbourg: Council of Europe, 1997.
9. *Pharmacopoeia internationalis*. Stuttgart: Wissenschaftliche Verlagsgesellschaft, 1995.
10. Hahnemann S. *Organon of medicine*, 6th Ed. New Delhi: B. Jain Publishers, 1991.

11. Hahnemann S. *Materia Medica Pura*. New Delhi: B. Jain Publishers, 1994, 2 v.
12. Teixeira MZ. Semelhante cura semelhante: o princípio de cura homeopático fundamentado pela racionalidade médica e científica [Similar cures similar: the homeopathic cure principle based by the medical and scientific rationality]. São Paulo: Editorial Petrus, 1998.
13. Teixeira MZ. Similitude in modern pharmacology. *Br Homeopath J*. 1999; 88 (3): 112-120.
14. Kovacs I. Experimentation of the rebound effect of biphasic oral contraceptives. *Ther Hung*. 1990; 38: 110-113.
15. Tyler ET, Olson HJ. Clinical use of new progestational steroids in infertility. *Ann NY Acad Sci*. 1958; 71: 704.
16. Garcia CR, Pincus G. Effects on three 19-nor steroids on human ovulation and menstruation. *Amer J Obstet Gynec*. 1958; 75: 82.
17. Borglin N. Inhibitory effect of Lynestrenol and Lyndiol on human ovarian function. *Int J Fertil* 1964; 9: 17.
18. Szontágh F. Experiences with Infecundin tablets. *Ther Hung*. 1968; 16: 1.
19. Akasa H, Usami M, Koiso K et al. Long-term clinical study of luteinising hormone agonist depot formulation in the treatment of stage D prostatic cancer. *Jpn J Clin Oncol*. 1992; 22:177-184.
20. Plosker GL, Brogden RN. Leuporelin: a review of its pharmacology and therapeutic use in prostatic cancer, endometriosis and other Sex hormone-related disorders. *Drugs*. 1994; 6: 930-967.
21. Breul J, Paul R. Das Antiandrogenentzugssyndrom. [Anti-androgen withdrawal syndrome]. *Urologe (A)*. 1998; 37(2): 156-158.
22. Reid P, Kantoff P. Antiandrogens in prostate cancer. *Invest New Drugs*. 1999; 17(3): 271-284.
23. Mousa AS, Forsythe MS, Bozarth JM, Reilly TM. Effect of single oral dose of aspirin on human platelet functions and plasma plasminogen activator inhibitor-1. *Cardiology*. 1993; 83(5-6): 367-373.
24. Beving H, Eksborg S, Malmgren RS, Nordlander R, Ryden L, Olsson P. Inter-individual variations of the effect of low dose aspirin regime on platelet cyclooxygenase activity. *Thromb Res*. 1994; 74(1): 39-51.
25. Andrioli G, Lussignoli S, Ortolani R, Minuz P, Bellavite P. Dual effects of diclofenac on human platelet adhesion in vitro. *Blood Coag Fibrinol*. 1996; 7: 153-156.
26. Andrioli G, Lussignoli S, Gaino S, Benoni G, Bellavite P. Study on paradoxical effects of NSAIDs on platelet activation. *Inflammation*. 1997; 21: 519-530.
27. Doutremepuich C, Pailley D, Anne MC, Seize O, Paccalin J, Quilichini R. Template bleeding time after ingestion of ultra-low doses of acetylsalicylic acid in healthy subjects. *Thromb Res*. 1987; 48: 501-504.
28. Aguejof O, Belougne-Malfati E, Doutremepuich F, Belon P, Doutremepuich C. Tromboembolic complications several days after a single-dose administration of aspirin. *Thromb Res*. 1998; 89: 123-127.

29. Wagner H, Kreher B, Jurcic K. *In vitro* stimulation of human granulocytes and lymphocytes by pico and fentograg quantities of cytostatic agents. *Arzneim Forsch/ Drug Res.* 1988; 38: 273-275.
30. Wagner H, Kreher B. Agents cytotoxiques comme immunostimulants. In: *Signaux et Images.* (M. Bastide ed.). Paris: Alpha Bleue Ed., 1990, p 9-29.
31. Martin RA, Barsoum NJ, Sturgess JM, de la Iglesia FA. Leukocyte and bone marrow effects of a thiomorpholine quinazolin antihypertensive agent. *Toxicol Appl Pharmacol.* 1985; 81(1): 166-173.
32. Grossman E, Messerli FH. High blood pressure. A side effect of drugs, poisons and food. *Arch Intern Med.* 1995; 155(5): 450-460.
33. Klein C, Morton N, Kelley S, Metz S. Transdermal clonidine therapy in elderly mild hypertensives: effects on blood pressure, plasma norepinephrine and fasting plasma glucose. *J Hypertens Suppl.* 1985; 3(4): 81-84.
34. Lan L, Di Nicolantonio R, Bramich C, Morgan TO. Brief treatment of SHR with na ACE inhibitor fails to cause long-term normotension but markedly increases mortality. *Clin Exp Pharmacol Physiol.* 1995; 22(1): 345-346.
35. Cloarec-Blanchard L, Funck-Brentano C, Carayon A, Jaillon P. Rapid development of nitrate tolerance in healthy volunteers: assessment using spectral analysis of short-term blood pressure and heart rate variability. *J Cardiovasc Pharmacol.* 1994; 24(2): 266-273.
36. Larsen R, Kleinschmidt S. Controlled hypotension. *Anaesthesist.* 1995; 44(4): 291-308.
37. Shapiro AG, Thomas L. Efficacy of bromocriptine versus breast binders as inhibitors of postpartum lactation. *South Med J.* 1984; 77(6): 719-721.
38. European Multicentre Study Group for Cabergoline in Lactation Inhibition. Single dose cabergoline versus bromocriptine in inhibition of puerperal lactation: randomised, double blind, multicentre study. *BMJ.* 1991; 302(6789): 1367-1371.
39. Webster J. A comparative review of the tolerability profiles of dopamine agonists in the treatment of hyperprolactinaemia and inhibition of lactation. *Drug Saf.* 1996; 14(4): 228-238.
40. Godoi N, Barbosa MSM, Campo MI, Suzuki FA, Ganança MM. The involving optokinetic stimulation as aid in labyrinthine compensation of peripheral vestibular syndromes. *Acta AWHO.* 1993; 12(2): 65-8.
41. Barbosa MSM, Ganança FF, Caovilla HH, Ganança MM. Vestibular rehabilitations: its meaning and application. *Rev Bras Med Otorrinolaringol.* 1995; 2(1): 24-34.
42. Hahnemann S. *The Chronic Diseases.* Translated by RG Dudgeon. New Delhi: B. Jain Publishers, 1983.

“Paradoxical strategy for treating chronic diseases”: a therapeutic model used in homeopathy for more than two centuries³

In his seminal work on homeopathy (*Essay on a new principle to ascertain the curative powers of drugs*, 1796) [1], Samuel Hahnemann summarised the pharmacological properties of many medicines used at his time, which had a secondary curative power separate from their primary effect. The drugs are analysed according to the primary action organic alterations and the secondary action of the organism to try to nullify these disturbances, the latter being responsible for the curative vital reaction of the homeopathic treatment.

In the *Organon of medicine* (paragraphs 56-60) [2], Hahnemann criticises the enantiopathic treatment method (*contraria contrariis curentur*), mentioning a large number of drugs of his time that were used according to the primary palliative effect, demonstrating that “after such short antipathic amelioration, aggravation follows *in every case without exception*” (*Organon*, paragraph 58).

Based on his clinical observations (*Organon*, paragraphs 61-65), Hahnemann proposed his therapeutic method: every drug which causes a disturbance in a healthy organism (artificial disease) is capable of curing the same disturbance in a sick organism (*similia similibus curentur*), as it provokes an organic reaction contrary to the initial symptom provoked, nullifying the similar natural disease.

In 1999, I published in *Homeopathy* the article “Similitude in modern pharmacology” [3] which demonstrated the vital reaction of the organism observed with many modern pharmaceutical agents, after the discontinuation of treatment. It can be verified that after the withdrawal of drugs used to eliminate symptoms according to the contrary principle, the same symptoms that were initially suppressed return with greater intensity than originally (rebound effect or paradoxical reaction). In this paper, I proposed evidence of the validity of homeopathic experimental observations according to the modern pharmacological model.

In 2003, following the same line of reasoning, I published in *Medical Hypotheses* the paper “Homeopathic use of modern medicines: utilisation of the curative rebound effect” [4], proposing a systematization of modern medicines, in conformity with the homeopathic principle to reverse chronic organic conditions through the homeostatic or paradoxical reaction (secondary action or vital reaction of the homeopathic paradigm).

³ Teixeira MZ. ‘Paradoxical strategy for treating chronic diseases’: a therapeutic model used in homeopathy for more than two centuries. *Homeopathy* 2005; 94(4): 265-266. Available at: <https://doi.org/10.1016/j.homp.2005.08.018>

Describing the evidence from physiology and modern pharmacology, I suggested the use of current drugs, in infinitesimal doses in conformity with a partial (isolated symptoms) or a global (totality of characteristic symptoms) application of the therapeutic similitude principle. Exemplifying the application of the “partial similitude” with infinitesimal doses of modern medicines, I suggested the use of salicylates for haemorrhage and bleeding, immunosuppressant agents to stimulate the immune system, hypertensive agents in hypertensive patients, hypotensive agents in hypovolemic shock, dopamine agonists to stimulate lactation.

In recent issue of *Medical Hypotheses*, Anthony J. Yun *et al.* published a paper entitled “Paradoxical strategy for treating chronic diseases where the therapeutic effect is derived from compensatory response rather than drug effect” [5], as an “unedited proposal” (“our counterintuitive paradigm”, “our paradoxical treatment model”, etc.) of treatment of chronic diseases through compensatory mechanisms of the organism. The authors did not mention previous initiatives in this area, omitting any mention of homeopathy.

Using homeopathic concepts without mentioning homeopathy, Yun *et al.* took over the intellectual property used for more than two centuries by homeopathy: “Our hypothesis portends a different trend in pharmacology: the development of drugs that require more innovative dosing, increase sensitisation over time enabling dose reduction, and may cure the underlying chronic condition” [5].

I sent a letter to the Editor of Medical Hypothesis pointing this out, but it was not published for reasons explained in his recent editorial [6] (“since he became editor of the journal, Medical Hypotheses no longer publishes articles from the field of Alternative healing”) and the interpretation that “Yun *et al.* were writing a paper in the paradigm of biological science, which does not include homeopathy”. The Editor in Chief of Medical Hypotheses, Bruce G. Charlton, affirms in the editorial that “the homoeopathic law of similar (or ‘like cures like’) is not a part of pharmacology”, classifying all practices of the alternative and complementary medicine (CAM) as spiritualistic therapeutic methods without scientific bases: “To be specific, it seems obvious to me that alternative healing is not based on scientific theories for the simple reason that it is essentially a branch of New Age spirituality” [6].

Unfortunately, with the death of Dr. David F. Horrobin in 2003, founding Editor in Chief of *Medical Hypotheses*, medicine was doubly affected: she lost a brilliant mind, open to wide knowledge of the medical sciences, and a journal that used to publish, without partiality or prejudices, medical hypotheses that cross the limited Cartesian scientific model.

References

Scientific Publications

1. Hahnemann S. Essay on a new principle for ascertaining the curative power of drugs, and some examinations of the previous principles. *Journal der praktischen Arzneykunde*. 1796; 2: 391.
2. Hahnemann S. Organon of medicine, 6th Edn. New Delhi: B. Jain Publishers, 1991.
3. Teixeira MZ. Similitude in modern pharmacology. *Br Homeopath J*. 1999; 88 (3): 112-120.
4. Teixeira MZ. Homeopathic use of modern medicines: utilisation of the curative rebound effect. *Med Hypotheses*. 2003; 60(2): 276-283.
5. Yun AJ, Lee PY, Bazar KA. Paradoxical strategy for treating chronic diseases where the therapeutic effect is derived from compensatory response rather than drug effect. *Med Hypotheses*. 2005; 64(5): 1050-1059.
6. Charlton BG. Why Medical Hypotheses does not publish papers from the field of Alternative healing. *Med Hypotheses*. 2004; 63(4): 557-559.

New homeopathic medicines: use of modern drugs according to the principle of similitude⁴

Abstract

The homeopathic method of healing is grounded on the application of the principle of therapeutic similitude (*similia similibus curentur*) by using medicines that cause effects similar to the symptoms of disease in order to stimulate the reaction of the organism against its own disturbs. Such vital, homeostatic or paradoxical reaction of the organism can be scientifically explained on the basis of the rebound effect of modern drugs. This article presents the conclusion of a study aiming at a method to use modern drugs with homeopathic criteria. This claim is epistemologically justified by the fact that a definite class of adverse events described by experimental pharmacology represents actual pathogenetic symptoms of drugs. On these grounds it was possible to elaborate a homeopathic materia medica and repertory comprising 1,251 modern drugs to be employed according to the principle of therapeutic similitude. Besides supplying a basis for homeopathy as a medical rationality regarding scientific pharmacology, this study makes available a method that may broaden the scope of intervention of homeopathy in present day diseases.

Introduction

While putting into question the efficacy of the palliative or enantiopathic method of treatment (*Organon of medicine*, paragraphs 23, 52-62, 69) [1], Samuel Hahnemann prioritized the homeopathic method of treatment as the most effective manner to employ medicines for the cure of chronic diseases, by prescribing to ill individuals a remedy able to elicit an artificial morbid state similar to the totality of symptoms of the individual case of disease to be healed (*Organon*, paragraphs 24-27).

Grounded on the study of the effects of the medical drugs common in his time [2], where he observed a *secondary action* (*indirect effect or reaction*) of the organism following the *primary action* (*direct effect*) of the drugs, Hahnemann enunciated a principle to explain the effects of any medicine on the state of health of human beings:

“Every agent that acts upon the vitality, every medicine, deranges more or less the vital force, and causes a certain alteration in the health of the individual for a longer or a shorter period. This is termed primary action. [...] To its action our vital force endeavors to oppose its own energy. This resistant action is a property, is indeed an automatic action of our life-preserving power, which goes by the name of secondary action or counteraction”. (*Organon*, paragraph 63)

⁴ Teixeira MZ. New homeopathic medicines: use of modern drugs according to the principle of similitude. *Homeopathy*. 2011; 100 (4): 244-252. Available at: <https://doi.org/10.1016/j.homp.2011.01.002>

He exemplified this phenomenon with the description of the primary action of several remedies that, by causing alterations in the organic physiology automatically awaken a secondary action of the organism (vital reaction or conservation force), which becomes manifest through the production of effects opposite to the initial ones, aiming at neutralizing the primary alterations elicited by the drugs and returning the organism to the state of equilibrium previous to the pharmacological intervention (*Organon*, paragraphs 59, 65).

Emphasizing that the secondary reaction of the organism (opposite to the primary action of drugs) appears “in every case without any exception” after the use of either “excessively large” or infinitesimal doses by individuals both healthy and ill, Hahnemann raised the principle of similitude to the level of a “natural law” (*Organon*, paragraphs 58, 61, 100-112).

By prescribing to ill individuals remedies that make similar symptoms appear on the state of health of human beings (*similia similibus curentur*), the principle of therapeutic similitude seeks to stimulate a *healing homeostatic reaction* that leads the organism to react against its own disturbs. Despite semantic differences, the terms *secondary action*, *vital reaction* and *homeostatic reaction* denote one and the same phenomenon, namely the tendency or ability of living beings to maintain the constancy of the internal medium through automatic self-adjustments of physiological processes.

In the terms of scientific rationality and modern pharmacology, Hahnemann’s *primary action* corresponds to the *therapeutic*, *adverse* and *side effects* of conventional drugs, whereas the *secondary action* (*vital reaction*) corresponds to the *rebound effect* of modern drugs (*paradoxical reaction of the organism*) appearing after the discontinuance or alteration of dosage (*withdrawal syndrome*) of all classes of drugs that act contrarily to the symptoms of diseases. [3-9]

Evidenced by clinical and experimental pharmacology [8-9], the properties of the paradoxical reaction (rebound effect) of the organism are the same as the ones of the vital reaction (secondary action) described by Hahnemann (*Organon of medicine*, paragraphs 59, 64, 69): (1) it appears only in susceptible individuals, who present in their constitution symptoms similar to the pathogenetic effects of the drug; (2) it does not depend on the drug, repetition of doses or type of symptoms (disease); (3) it appears after the primary action of the drug (discontinuation), as an automatic manifestation of the organism; (4) it induces an organic state (symptoms) opposite and greater in intensity and/or duration than the primary action of the drug; (5) the magnitude of its effect is proportional to the intensity of the primary action (dose) of the drug.

Analogously to traditional secondary action of homeopathic medicines [3-9], the rebound effect of modern drugs can be used for therapeutic purposes [10-11], namely to stimulate

homeostatic healing reactions provided they are prescribed according to the principle of similitude of symptoms as it is described below.

Method

This article presents the conclusion of previous research aiming at a method to use modern drugs according to the principle of therapeutic similitude [10-11]. The first part discusses the possibility to assimilate the adverse events of conventional drugs to pathogenetic effects or new symptoms of these drugs despite being the result from the use of ponderal doses on ill individuals. In the second part it is described the elaboration of a homeopathic materia medica and repertory comprising the adverse events (primary effects) of modern drugs, illustrating and systematizing their therapeutic application in present day diseases.

Homeopathic pathogenetic experimentation

In order to learn the healing properties of the medicines to be prescribed according to the principle of therapeutic similitude, homeopathy employs pathogenetic experimentation, also known as homeopathic pathogenetic trials (HPTs), as its model of clinical pharmacological research (similar to the modern “phase I studies” of modern pharmacological clinical research). HPTs take into account all kinds of *primary actions* or *pathogenetic manifestations* (mental, general and local symptoms) elicited by drugs on the state of health of human beings, which are known in modern pharmacology as *therapeutic, adverse or side effects* of drugs.

Hahnemann stipulated strict premises for pathogenetic trials (*Organon*, paragraphs 105-145), nevertheless, the actual homeopathic materia medica is a compilation of the signs and symptoms observed after the experimentation of thousands of substances on both healthy and ill individuals with ponderal (substances in crude state) or infinitesimal (potentiated medicines) doses, resulting in artificial morbid states that allow for the application of the homeopathic method of treatment.

Ideally, Hahnemann indicated that pathogenetic trials ought to be carried out with “moderate doses” of drugs on “healthy individuals” *to avoid confounding the true effects of drugs and the symptoms of disease* (*Organon*, paragraphs 106-109). Nevertheless, he himself tested medicines in ponderal doses and/or on ill individuals as it can be seen in *Fragmenta de viribus medicamentorum positivis*, *Materia Medica Pura* and *Chronic Diseases*.

Regarding experimentation on the sick, Hahnemann held as valid the pathogenetic manifestations arising from a “simple medicine employed for a curative purpose”, provided one can select “the symptoms which, during the whole course of the disease, might have

been observed only a long time previously, or never before, consequently new ones, belonging to the medicine” (*Organon*, paragraph 142).

Although in the same place Hahnemann highlights the difficulty in distinguishing between the effects of a remedy and the symptoms of disease [“(it) is a subject appertaining to the higher art of judgment, and must be left exclusively to masters in observation”], according to the strict protocols of modern clinical research of new drugs (phases I to IV studies) and the resulting classification of the adverse events observed, the *predictability*, *frequency* and *causality* of such effects are sufficient grounds to assimilate them to “new symptoms” of tested drugs as follows.

To substantiate the validity of pathogenetic trials with ponderal doses and/or on ill individuals, Hahnemann observed that the effects of experiments described by previous authors carried out with “large doses of medicinal substances” on healthy (poisonings) and ill (therapeutic overdoses) individuals were very similar to his observations while testing the very same substances on himself and other healthy individuals (*Organon*, paragraphs 110-112).

Analogously to the classification of the frequency of adverse events of modern drugs, Hahnemann writes that “some symptoms are produced by the medicines more frequently - that is to say, in many individuals, others more rarely or in few persons, some only in very few healthy bodies” (*Organon*, paragraph 116). Thus, “all the symptoms peculiar to a medicine do not appear in one person, nor all at once, nor in the same experiment”, and for this reason it is needed “numerous observations on suitable persons” in order to find out the full picture of the medicinal disease (*Organon*, paragraphs 134-136).

According to their power to cause alterations in the state of health of human beings (*pathogenicity*), Hahnemann classified drugs in “strong” (heroic), “moderate” and “weak”, and recommended to employ them in doses inversely proportional to their pathogenetic power (*Organon*, paragraph 121).

Regarding the pharmacotechnical preparation of the tested drugs, Hahnemann notices that substances in “crude state” (ponderal doses) “do not exhibit nearly the full amount of the powers that lie hidden in them, which they do when they are taken for the same object in high dilutions potentized by proper trituration and succussion”. For this reason, he suggested to carry out pathogenetic trials with daily doses of 4 to 6 globules of the 30th potency and to increase progressively the number of globules according to individual susceptibility (*Organon*, paragraphs 128-129).

Furthermore, after the initial intake of a “sufficiently strong dose” (i.e., a large number of potentiated globules), the experimental subject can perceive “the order of succession of the symptoms” and “the duration of the action of a drug” (*Organon*, paragraph 130), whereas with the use of increasing and successive doses, he or she can learn “the various morbid states that this medicine is capable of producing in a general manner, but he cannot

ascertain their order of succession or duration of the action” (*Organon*, paragraphs 131, 132).

Pathogenetic trials with ponderal doses and/or on ill individuals

As it was mentioned above, although ideally HPTs ought to be carried out with potentiated drugs on healthy individuals, the homeopathic materia medica is full of signs and symptoms derived from the experimentation of medicines in ponderal doses and/or on ill individuals. Analogously, homeopathic treatment was also accomplished with ponderal doses on the grounds of the pathogenetic manifestations observed after the intake of ponderal doses by healthy (poisonings) and ill (therapeutic overdoses) individuals.

In order to have a clearer notion of these singular features of homeopathic practice, the following summary of the historical reviews by Robert E. Dudgeon [12] and Richard Hughes [13] might be useful.

In the early years of homeopathy, Hahnemann applied the principle of therapeutic similitude with drugs in ponderal doses on the grounds of the pathogenetic symptoms awakened by such substances on healthy and ill individuals. This allowed him to heal a series of chronic, acute and epidemic diseases, as described in *Essay on a new principle* [2], published in 1796: uterine colic with *Matricaria chamomilla*; autumnal dysentery with *Arnica montana*; painful indurations of the lymph nodes with *Conium maculatum*; paralytic and spasmodic affections with *Solanum dulcamara*; chronic hemorrhages, mania and seizures with *Hyosциamus niger*; tremors, fasciculations, cramps and intermittent fevers with *Ignatia amara*; amaurosis, cataracts and opacities of the cornea with *Anemona pratensis*, etc. By keeping the same procedure, he was also able to heal a large number of patients suffering from continual and remittent fevers with *Ignatia amara*, *Opium*, *Camphora*, *Ledum palustre* and *Aconitum napellus* [14].

In 1799, during an epidemic of scarlet fever [15], Hahnemann used for the first time diluted and agitated doses of *Belladonna*, *Opium* and *Ipeca* in order to decrease the pathogenetic power of doses and thus avoid aggravation [16]. In 1814, during the treatment of typhus or hospital fever [17], Hahnemann outlined the pharmacotechnical method of potentiation (serial dilutions and strong agitation) in the preparation of *Bryonia alba*, *Hyosциamus niger* and *Rhus toxicodendron*, of which he administered one single drop of the 12th attenuation to each patient, since he held it a “very strong dose”. The *theory of potentiation* strictly speaking only appeared in 1827 [18], when Hahnemann incorporated the processes of trituration and succussion into the preparation of the “homeopathic medicinal attenuations” in order to develop and exalt the “dynamic medicinal powers of natural substances”.

In 1805, Hahnemann stipulated the premises to carry out pathogenetic trials with minimal doses and on healthy individuals in *The medicine of experience* [19], as the outcome of his previous testing of medicines on himself, friends and relatives.

That very same year he published the pathogenetic studies of 27 remedies in a book entitled *Fragmenta de viribus medicamentorum positivis, sive in sano corpore humano observatis* [20], which thus represents the first homeopathic materia medica that Hahnemann used in his clinical practice. The sources of the pathogenetic symptoms listed were his own observations (of poisonings, therapeutic overdoses, self-experimentation and tests on other healthy individuals) as well as the ones “by others” and reported in the literature. Although he gave no information about the doses and mode of administration of the drugs, it is believed that he began with single strong doses (in solution), to repeat them whenever he thought it was needed, after the end of the action of the previous dose, thus complying with the premises he had stated earlier.¹⁹

Six years later, in 1811, Hahnemann published the first volume of *Reine Arzneimittellehre (Materia Medica Pura)* [21,22] which included 6 new and 6 older (already published in *Fragmenta*) pathogenetic studies, with significant additions of symptoms. In 1816, the second volume was published containing the pathogenetic effects of 8 remedies and 3 trials with magnet; in 1817, the third volume, with 8 remedies; in 1818, the fourth volume, with 12 remedies; in 1819, the fifth volume, with 11 remedies; and finally in 1812, the sixth volume, with 10 remedies. Therefore, the complete work comprised 61 medicines (besides magnet), 39 of which were new, while the remaining 22 were extended studies of medicines already published in *Fragmenta*. For this project, Hahnemann had the assistance of 37 experimental subjects/disciples (3 of whom manifested symptoms of their own diseases in all the remedies they tested), with very few data on the doses and mode of administration of the drugs. [13]

Between 1822-1827, Hahnemann published the second and extended edition of *Materia Medica Pura*, also in 6 volumes comprising the same pathogenetic studies as the first edition and 3 new ones that were included in the last volume. According to Hughes’ analysis [13], there is a significant increase in the number of symptoms listed in the first volume, arising from trials on healthy individuals (whereas the first edition only listed “observations by others”). Moreover, retrials are more frequent for the drugs described in the first 4 volumes, since beginning 1821, after the move to Köthen and having Hahnemann reached his eighth decade of life, he was physically distant from the experimental subjects/disciples and also too old to continue his self-experiments. In this context, it is worth to remind that “observations by others” (namely, reports of poisonings in healthy individuals and therapeutic overdoses in the ill) represent a large fraction of most pathogenetic studies in *Materia Medica Pura*; as a fact, only 13 remedies lack such kind of data. [13]

Still in Köthen, Hahnemann published between 1828-1830 the 4 volumes of the first edition of *Chronic Diseases* [23], which introduced 17 new and 5 extended pathogenetic studies of remedies already published in *Materia Medica Pura*. With the only exception of *Kalium carbonicum* and *Natrum muriaticum* - which were tested in potentiated doses (30cH) and in (2 and 3, respectively) healthy individuals - the remainder of medicines were

tested in diversified potencies (e.g. “small portions of a grain”; 2nd and 3rd trituration; 6th and 30th potency) and on individuals suffering from chronic diseases. [13]

The second edition of *Chronic Diseases*, published between 1830-1835, added 25 pathogenetic studies (13 new and 12 already published in *Materia Medica Pura* and extended) to the 22 listed in the first edition. In both editions, the pathogenetic manifestations listed are adverse and side effects of drugs prescribed to patients suffering from chronic diseases, as Hughes stated explicitly:

“[...] Hahnemann’s own additions to the second issue of his work must be of the same character as his contributions to the first, *i.e.* they must be collateral effects of the drugs observed on the patients to whom he gave them”. [13]

Just as there are countless pathogenetic manifestations derived from the testing of drugs in ponderal doses and/or on ill individuals in the works on materia medica written by Hahnemann, later authors also published new studies or additions to previous pathogenetic trials following the same procedure, among which: C. G. C. Hartlaub and C. F. Trinks (*Reine Arzneimittellehre*, 1828-1831, Germany), George H. G. Jahr (*Manual of Homeopathic Medicines*, 1835, Germany), Edwin M. Hale (*New Remedies*, 1867-1873, USA), Timothy F. Allen (*The Encyclopedia of Pure Materia Medica*, 1874-1879, USA). [12,13]

Adverse events as pathogenetic manifestations (new symptoms) of modern drugs

Adverse events or reactions to drugs are defined by the World Health Organization (WHO) as “a response to a drug which is noxious and unintended, and which occurs at doses normally used in man for the prophylaxis, diagnosis, or therapy of disease, or for the modification of physiological function” [24]. According to the *Guideline of Good Clinical Practice of European Medicines Agency* [25], any research involving human beings must comply with definite scientific and ethical rulings [26], in order to ensure the safety, protection and well-being of the participants. Surveillance, classification and notification of adverse effects, thus, are a mandatory requirement in protocols of research of new drugs [27].

During the study of a new drug (phases I to IV studies) [28], besides the expected therapeutic effect, also adverse effects appear (adverse side effects), which can be classified according to criteria such as predictability, frequency, intensity, causality and severity [29]. For the purposes of the present study, namely to assimilate the adverse side effects of modern drugs to pathogenetic effects (new symptoms) of such drugs on the state of health of human beings, the criteria that make evident this relationship are *predictability*, *frequency* and *causality* (Table 1).

Table 1. Classification of adverse events

Adverse events		
Predictability	Frequency	Causality
Predictable Already reported in other studies	Very rare ($< 0.01\%$)	Defined
	Rare ($\geq 0.01\%$ and $< 0.1\%$)	Probable
Unpredictable Unknown (uncertainty)	Not common ($\geq 0.1\%$ and $< 1\%$)	Possible
	Common ($\geq 1\%$ and $< 10\%$)	Unlikely or unrelated
	Very common ($\geq 10\%$)	
	Not quantified (chance)	

According to the criterion of *predictability*, “predictable” adverse effects are the ones that are already described in the literature (drug monographs); conversely, the “unpredictable” ones have not yet been reported. In the present study, it was used the adverse side effects described in drug monographs (*The United States Pharmacopeia Dispensing Information - USP DI, 2004*) [30], therefore they are all predictable and are likely to reappear in future trials.

In turn, “predictable” adverse effect can be further classified according to their *frequency* or *incidence of expression* (*Council for International Organizations of Medical Sciences - CIOMS*) [31] as: (1) “very common”: frequency higher than or equal to 10.0%; (2) “common”: higher than or equal to 1.0% and lower than 10.0%; (3) “not common”: higher than or equal to 0.1% and lower than 1.0%; (4) “rare”: higher than or equal to 0.01% and lower than 0.1%; and (5) “very rare”: lower than 0.01%.

The drug monographs used in the present study (*USP DI*) [30] classify the adverse/side effects of drugs according to their frequency in 3 groups, which however are closely related to *CIOMS*’ (and that, indeed, it is described for some drugs): (1) “more frequent”: higher than or equal to 4.0%; (2) “less frequent”: higher than or equal to 1.0% and lower than 4.0%; and (3) “rare”: lower than 1.0. Both *CIOMS* and *USP DI* classifications can be correlated (Table 2).

Table 2. Frequency of adverse events - Comparison between classifications (*USP DI* - *CIOMS*)

Frequency of adverse events	
Classification in <i>USP DI</i>	Classification in <i>CIOMS</i>
Incidence more frequent ($\geq 4\%$)	Very common ($\geq 10\%$)
	Common ($\geq 1\%$ and $< 10\%$)
Incidence less frequent ($\geq 1\%$ and $< 4\%$)	Common ($\geq 1\%$ and $< 10\%$)
Incidence rare	Not common ($\geq 0.1\%$ and $< 1\%$)

(< 1%)	Rare ($\geq 0.01\%$ and $< 0.1\%$)
	Very rare ($< 0.01\%$)

It is worth to remind here that before any new drug can be approved and marketed it must be subjected to phases I to III studies, where their adverse events are observed in thousands of individuals. Phase IV studies conversely refer to the surveillance and vigilance of the effects of a drug after it entered the market, which widens the scope of observation to tens of thousands of individuals and also on the long run. The results are incorporated then into the drug monographs, which are periodically updated (*USP DI*).

In this way, the adverse events used in the present study as pathogenetic manifestations of drugs (new symptoms) were observed in the lowest frequencies (about 1.0%) in hundreds of individuals, a fact that strengthens the validity of the present proposal.

On the other hand, since modern therapeutic plans prescribe successive doses of drugs along several days, the adverse events correspondingly described represent “the various morbid states that this medicine is capable of producing in a general manner, but not in their order of succession of symptoms or duration of the action” (*Organon*, paragraphs 131, 132).

Regarding the aspect of *causality*, according to the WHO [29,32], an adverse event is related to a drug according to the following categories: “defined”, “probable”, “possible”, “improbable”, “conditional” and “unclassifiable”, depending on the degree of certainty of the corresponding interaction. By definition, adverse events whose causality is rated as “defined” or “probable” exhibit temporal sequence (i.e., there is a temporal connection between the administration of the drug and the appearance of the adverse event); typical reaction; they disappear when the drug is discontinued; and *cannot be explained out of the underlying disease or other therapeutic means*.

The causal link between a drug and an adverse event (*risk evaluation*) is retrospectively established as of cause-effect. “Predictable” and “quantified” (i.e. determined frequency) have “probable causality” [29]. For this reason, the adverse side effects used in the present study (*USP DI*) have evident causal relation to the corresponding drugs (*predicted risk*) and thus “are new symptoms that belong to the drug” (*Organon*, paragraph 142).

Use of modern drugs according to the therapeutic similitude

Following the pattern of traditional homeopathy, this study proposes to employ modern drugs according to the principle of therapeutic similitude, stimulating the healing rebound effect (vital reaction) of the organism through the administration of substances (in ponderal or infinitesimal doses) that caused similar symptoms in healthy human.

Although initially cited, is worth emphasizing that the *pathogenetic effects (primary actions)* of classical homeopathic medicines correspond to the *therapeutic, adverse and side effects* of conventional drugs, which should be similar to totality of the symptoms of the patient to stimulate the curative vital reaction (rebound effect) according to the principle of therapeutic similitude.

To make this proposal operative, a *Homeopathic Materia Medica of Modern Drugs (HMMMD)* was elaborated, where the therapeutic, adverse and side effects of drugs (*USP DI*) were grouped following the structure of the traditional homeopathic materia medica, while giving particular value to the frequency of the symptoms observed during the phases of study of the drugs.

In order to facilitate the selection of the individualized remedy (i.e., similar to the totality of symptoms of the patient), and thus the clinical application of the present proposal, at a later stage it was also elaborated a *Homeopathic Repertory of Modern Drugs (HRMD)*, where symptoms and remedies are arranged as in the traditional homeopathic repertories.

Homeopathic Materia Medica of Modern Drugs (HMMMD)

In principle, to elaborate a *HMMMD*, any pharmacological compendium containing the results of the clinical studies of conventional drugs (drug monographs) can be used as a source, provided it is reliable and does not exhibit conflict of interest with the pharmaceutical industry. Following these requirements, for the present study it was initially chosen *The United States Pharmacopeia Dispensing Information (USP DI, 2004)* [30], although at a later stage it might be complemented with other reference works [33-36].

The first stage of analysis of the drug monographs focused on the following items: (1) name of the drug; (2) commercial name; (3) category (drug classes); (4) conventional indications; and (5) adverse/side effects (more frequent, less frequent and rare; overdose).

Then, the resulting data were systematized according to the traditional structure of the homeopathic materia medica. The pathogenetic symptoms or primary effects (i.e., therapeutic, adverse and side effects) of each drug were distributed along the following chapters: Mind; Vertigo; Head; Eye; Vision; Ear; Hearing; Nose; Face; Mouth; Teeth; Throat; External Throat; Stomach; Abdomen; Rectum; Stool; Bladder; Kidneys; Prostate Gland; Urethra; Urine; Genitalia Male; Genitalia Female; Larynx and Trachea; Language, Conversation and Voice; Respiration; Cough; Expectoration; Chest; Back; Extremities; Nails; Sleep; Dreams; Chill; Fever; Perspiration; Skin; and Generalities.

A new chapter was added to the traditional ones, comprising the alterations caused by modern drugs in diagnostic tests (“Diagnostic Tests”).

Also keeping in with the homeopathic tradition, as well as complying with the classification of adverse events mentioned above, a score was given to the frequency of

incidence of the pathogenetic effects of drugs (adverse events), represented in the text of the *HMMMD* by different styles of fonts. In this regard, it must be mentioned that the therapeutic effects of drugs (conventional indications) received the highest scores since they are virtually observed in most patients (Table 3).

Table 3. Description of symptoms (adverse events) in the text

Description of symptoms in the text		
Frequency of incidence	Score	Font style
Very common (therapeutic effects)	5 points	<i>Bold italic</i>
More frequent (≥ 4%) [30]	4 points	Bold
Less frequent (≥ 1% and < 4%) [30]	3 points	<u><i>Italic underline</i></u>
Rare (< 1%) [30]	2 points	<i>Italic</i>
Overdose	1 point	Normal

When arranging the pathogenetic effects in the *HMMMD*, syndromes (i.e., modern clinical diagnoses) were kept as such, but their component symptoms were separated and included in the corresponding chapter of the *HRMD*.

The first version of *HMMMD* comprises 1,251 modern drugs, whose symptoms were systematized according to the homeopathic model allowing for their therapeutic application as prescribed by the principle of similitude. An example is given in Table 4, corresponding to the remedy “*Dihydroergotamine*”.

Table 4. Example of systematization of symptoms (adverse events) in *HMMMD*

<i>Dihydroergotamine</i> (Antimigraine agent)	
Chapters	Primary actions or pathogenetic symptoms
Mind	<u>Anxiety</u> ; <u>confusion</u> ; <u>depression</u> ; <u>euphoria</u> (unusual feeling of well being); <u>nervousness</u> ; delirium
Vertigo	Dizziness
Eye	<u>Conjunctivitis</u> (red or irritated eyes); <u>pain</u> ; <u>watering</u> , <u>increased</u>
Vision	<u>Blurred vision</u>
Hearing	<u>Tinnitus</u> (ringing or buzzing in the ears)
Nose	Irritation in the nose (burning or tingling sensation, dryness, soreness or pain in the nose; runny and/or stuffy nose; unexplained nosebleeds); sinusitis (runny or stuffy nose; headache)
Face	<u>Edema</u> (swelling of face)
Mouth	Dryness ; taste perversion (change in sense of taste); <u>salivation</u> , <u>increased</u> (increased watering of the mouth)
Throat	Pharyngitis (sore throat); <u>dysphagia</u> (difficulty swallowing)
Stomach	Nausea ; vomiting ; <u>anorexia</u> (decreased appetite); <u>dyspepsia</u> (heartburn); <u>pain</u>
Rectum	Diarrhea

Scientific Publications

Respiration	<u>Bronchitis</u> (congestion in chest; cough; difficult and/or painful breathing); <u>dyspnea</u> (shortness of breath); <u>infection, upper respiratory tract</u> (cough, fever, sneezing, or sore throat); depression, respiratory (shortness of breath)
Chest	<u>Angina pectoris</u> ; <u>arrythmias</u> (irregular heartbeat); <u>bronchitis</u> (congestion in chest; cough; difficult and/or painful breathing); <u>infarction or ischemia, myocardial</u> (feeling of heaviness in chest; pain in back, chest, or left arm; shortness of breath or troubled breathing); <u>palpitations</u> (pounding heartbeat); <u>vasospasm, coronary, induced</u> (chest pain)
Extremities	Stiffness, muscle ; <u>edema</u> (swelling of fingers, feet or lower legs); <u>ischemia, peripheral</u> (itching of skin; numbness and tingling of face, fingers, or toes; pain in arms legs, or lower back, especially pain in calves and/or heels upon exertion; pale, bluish-colored, or cold hands or feet; weak or absent pulses in legs); <u>tremors</u> (trembling or shaking of hands or feet); <u>weakness, muscle</u> ; numbness in the legs or arms; pain in the legs or arms; tingling in the legs or arms
Sleep	Somnolence (sleepiness); <u>insomnia</u> (trouble in sleeping); <u>yawning, increased</u>
Fever	<u>Fever</u>
Perspiration	Sweating, increased
Skin	<u>Cold, clammy skin</u> ; <u>petechia</u> (pinpoint red spots on skin); <u>pruritus</u> (itching of the skin); <u>skin rash</u>
Generalities	Asthenia (unusual tiredness or weakness); fatigue (unusual feeling of tiredness); hot flashes (sudden sweatings and feelings of warmth); paresthesia (sensation of burning, warmth, heat, numbness, tightness, or tingling); sinusitis (runny or stuffy nose; headache); stiffness, muscle ; <u>arrythmias</u> (irregular heartbeat); <u>infection, upper respiratory tract</u> (cough, fever, sneezing, or sore throat); <u>hypotension</u> (dizziness or lightheadedness when getting up from a lying or sitting position; sudden fainting); <u>palpitations</u> (pounding heartbeat); <u>tremors</u> (trembling or shaking of hands or feet); <u>weakness, muscle</u> ; convulsions; hypertension (dizziness; headaches, severe or continuing; increase in blood pressure)

Homeopathic Repertory of Modern Drugs (HRMD)

The pathogenetic symptoms described in the *HMMMD* were systematized following the traditional pattern of the homeopathic repertories. Thus, all drugs that awakened a same symptom were grouped together and mentioned by its corresponding “abbreviation”. The code of fonts used to write the abbreviated name of each remedy corresponds to the score and code used in the *HMMMD* (Table 3).

As it was mentioned above, in the case of the *HRMD* the symptoms composing syndromes (clinical diagnoses) were separated and listed in the corresponding chapter in order to facilitate a more accurate individualization of each case.

The *HRMD* also keeps the traditional hierarchical structure of the homeopathic repertories regarding the description of symptoms and their modalities. This is to say, the pathogenetic

manifestations were distributed along “rubrics”, “sub-rubrics”, etc. Also seeking to facilitate the search of the most accurate symptom, all chapters include “cross-references” between similar pathogenetic manifestations.

Table 5 presents an example of the model here proposed, in this case of “*Schizophrenia*”, listed in chapter “Mind” of *HRMD*.

Table 5. Example of description of symptoms in *HRMD* (Chapter Mind)

Schizophrenia (See Psychotic reactions; Confusion of mind, identity)

- **catatonic-like state or reaction, catatonia** (decreased awareness or responsiveness; mimicry of speech or movements; mutism; negativism; peculiar postures or movements, mannerisms or grimacing; severe sleepiness): *AnthisP-syst.*, *BetBA-syst.*, *BetBAT-syst.*, *Valp-syst.*, *Ven-syst.*
- **depersonalization**: *Aman-syst.*, **Amph-syst.**, *Andro-syst.*, *Atorv-syst.*, *Carbam-syst.*, *Cital-syst.*, *ConjE-syst.*, *Dipy-syst.*, *Efav-syst.*, *Eton-vag.*, *Fent-trsyst.*, *Fent-trsyst.*, *Flum-syst.*, *Fluorq-syst.*, *Leve-syst.*, **MedE-syst.**, *Mir-syst.*, *Nef-syst.*, *Riba-syst.*, **Sir-syst.**, *Testos-syst.*, *Tiz-syst.*, *TramA-syst.*, **Valp-syst.**, *Ven-syst.*, *Zale-syst.*, *Zic-syst.*, *Zop-syst.*
 - **feeling of unreality; sense of detachment from self or body**: *Clar-syst.*, *Fluorq-syst.*, *Paro-syst.*
 - **feelings of**: *AntinfN-syst.*, *Bupre-syst.*, *Opi-syst.*
 - **loss of sense of reality**: *Benzod-syst.*, *Efav-syst.*, *Gadov-syst.*
- **derealization** (alteration in the perception or experience of the external world) (See Confusion of mind, depersonalization; Derealization): *Nef-syst.*
- **personality changes/disorder**: *AppSupS-syst.*, *BronA-syst.* [Ephedrine]
 - **in pediatric patients**:
 - **3 to 12 years of age**: **Gab-syst.**
 - **with juvenile rheumatoid arthritis**: *Etan-syst.*
- **schizophrenic-type thought disorder**: *BronA-syst.* [Epinephrine]
- **schizophrenic or schizophreniform, behavior** (agitation; delusions; hallucinations): *Zon-syst.*

Aman-syst.: Amantadine (Systemic); *Amph-syst.*: Amphetamines (Systemic); *Andro-syst.*: Androgens (Systemic); *AnthisP-syst.*: Antihistamines, Phenothiazine-derivative (Systemic); *AntinfN-syst.*: Anti-inflammatory Drugs, Nonsteroidal (Systemic); *AppSupS-syst.*: Appetite Suppressants, Sympathomimetic (Systemic); *Atorv-syst.*: Atorvastatin (Systemic); *Benzod-syst.*: Benzodiazepines (Systemic); *BetBA-syst.*: Beta-adrenergic Blocking Agents (Systemic); *BronA-syst.* [Ephedrine]: Bronchodilators, Adrenergic (Systemic) [Ephedrine]; *Bupre-syst.*: Buprenorphine (Systemic); *Carbam-syst.*: Carbamazepine (Systemic); *Cital-syst.*: Citalopram (Systemic); *Clar-syst.*: Clarithromycin (Systemic); *ConjE-syst.*: Conjugated Estrogens and Medroxyprogesterone For Ovarian Hormone Therapy (OHT) (Systemic); *Dipy-syst.*: Dipyridamole (Systemic); *Efav-syst.*: Efavirenz (Systemic); *Etan-syst.*: Etanercept (Systemic); *Eton-vag.*: Etonogestrel and Ethinyl Estradiol (Vaginal); *Fent-trsyst.*: Fentanyl (Transdermal-Systemic); *Flum-syst.*: Flumazenil (Systemic); *Fluorq-syst.*: Fluoroquinolones (Systemic); *Gab-syst.*: Gabapentin (Systemic); *Gadov-syst.*: Gadoversetamide (Systemic); *Leve-syst.*: Levetiracetam (Systemic); *MedE-syst.*: Medroxyprogesterone and Estradiol (Systemic); *Mir-syst.*: Mirtazapine (Systemic); *Nef-syst.*: Nefazodone (Systemic); *Opi-syst.*: Opioid (Narcotic) Analgesics (Systemic); *Paro-syst.*: Paroxetine (Systemic); *Riba-syst.*: Ribavirin (Systemic); *Sir-syst.*: Sirolimus (Systemic); *Testos-syst.*: Testosterone (Systemic); *Tiz-syst.*: Tizanidine (Systemic); *TramA-syst.*: Tramadol and Acetaminophen (Systemic); *Valp-syst.*: Valproic Acid (Systemic); *Ven-syst.*: Venlafaxine (Systemic); *Zale-syst.*: Zaleplon (Systemic); *Zic-syst.*: Ziconotide (Systemic); *Zop-syst.*: Zopiclone (Systemic).

Discussion

Following in the steps of Aristotelian deductive logic that Hahnemann used to ground homeopathic treatment, the author of this article has been working for the last 12 years to ground the principle of therapeutic similitude on the rebound effect of modern drugs through studies of clinical and experimental pharmacology. Since it exhibits properties similar to the vital reaction adduced by the homeopathic model, this paradoxical reaction (rebound effect) of the organism can be used for healing purposes provided it is administered to patients drugs that caused similar symptoms in other (healthy or ill) individuals.

Although ideally, pathogenetic trials ought to be carried out with potentiated medicines on healthy individuals to avoid confounding the true pathogenetic effects of drugs and the symptoms of disease, the traditional homeopathic materia medica comprises symptoms and signs observed after testing of drugs on healthy and ill individuals with either ponderal or infinitesimal doses. In this way, it contains the picture of the artificial morbid states that allow for the application of therapeutic similitude.

The aspects of *predictability*, *frequency* and *causality* of adverse events contemplated in the clinical research of new drugs (phases I to IV studies) and described in the drug monographs show that they are true pathogenetic manifestations (new symptoms) of these drugs. This fact gives further support to their use according to the principle of therapeutic similitude.

In order to broaden the scope of application of therapeutic similitude to include thousands of new drugs, each of which has been tested in thousands of individuals following strictly designed protocols, it was elaborated a *HMMMD* and a *HRMD* on the traditional model of this genre of homeopathic literature. In the *HMMMD*, the symptoms of each drug were distributed in chapters representing an anatomical-functional dynamics and were scored according to their frequency of manifestation in the population of experimental subjects. The *HRMD* in turn groups together all the drugs that awakened a same symptom in the experimental subjects together with their corresponding scores.

Since unfortunately, the notification of the adverse events of modern drugs through the standard forms provided by pharmacovigilance offices do not require a thorough description of their modalities [37], the peculiarities of symptoms (*idiosyncrasy*) usual in the homeopathic traditional pathogenetic descriptions lack, i.e. the singular features required to individualize homeopathic remedies (*Organon*, paragraphs 133, 139,140). The fact that conventional drugs are tested in their “crude state” (non-potentiated doses) also conspires to limit the full expression of “their wealth of hidden powers”.

On the other hand, these drugs showed *high pathogenetic power* when administered in therapeutic doses, making their effects appear in hundreds or thousands of individuals. This fact warrants the validity of their homeopathic use in infinitesimal doses provided they are selected according to the *totality of symptoms* of the patient, minimizing the deficiency of idiosyncratic symptoms.

Therefore, the present proposal makes it possible to use other drugs to relieve clinical complaints ordinarily treated by homeopathy, as well as it opens the path for new applications of therapeutic similitude to encompass modern signs, symptoms and complex syndromes (Table 6).

Table 6. Examples of application of therapeutic similitude with modern drugs

Chapters	Application of therapeutic similitude (main rubrics)
Mind	Agitation, amnesia, anxiety, coma, delirium, delusions, dementia, depression, disorientation, forgetfulness, hyperactivity, irritability, lethargy, mania, nervousness, panic, schizophrenia, suicidal disposition, etc.
Vertigo	Dizziness, faintness, gait disorders, lightheadedness, orthostatic hypotension, syncope, unsteadiness, vertigo, etc.
Head	Aneurysm, cerebral (arteritis; edema; hemorrhage), encephalitis, headache, intracranial hypertension, meningitis, migraine, seborrhea, stroke, etc.
Eye	Astigmatism, atrophy, bleeding, cataract, chemosis, cornea disorders, dryness, glaucoma, inflammations, keratopathy, necrosis, neuritis, nystagmus, papilledema, paralysis, pupils disorders, retina disorders, etc.
Vision	Amblyopia, blindness, blurred, decreased, diplopia, hypermetropia, myopia, presbyopia, scotoma, etc.
Hearing	Buzzing, deafness, hyperacusis, hypoacusis, ringing, tinnitus, etc.
Nose	Congestion, coryza, dryness, epistaxis, rhinitis, sinusitis, sneezing, etc.
Face	Gestures, heat flushes, hirsutism, neuritis, paralysis, swelling, trismus, etc.
Mouth	Bleeding, discoloration, dryness, gingivitis, glossitis, mucositis, sialorrhea, speech disorders, stomatitis, taste disorders, ulcers, etc.
Throat	Angioedema, dryness, dysphagia, esophagitis, pharyngitis, ulcers, etc.
External throat	Goitre, heat flushes, hyperthyroidism, hypothyroidism, lymphadenopathy, parotiditis, parotitis, torticollis, etc.
Stomach	Anorexia, cramps, dyspepsia, eructations, gastritis, gastroenteritis, hemorrhage, hiccough, nausea, polydipsia, reflux, ulcers, vomiting, etc.
Abdomen	Ascites, appendicitis, cholelithiasis, cholestasis, cirrhosis, colitis, gastroenteritis, hemorrhage, hepatic (insufficiency; necrosis; steatosis), hepatitis, hepatomegaly, paralyticus ileus, inflammatory bowel disease, intestinal (obstruction; perforation), malabsorption syndrome, pancreatitis, peritonitis, splenomegaly, tumors, etc.
Rectum	Constipation, diarrhea, hemorrhage, hemorrhoids, mucositis, tenesmus, etc.
Bladder	Hemorrhage, infection urinary tract, urinary disorders, etc.
Kidneys	Calculi, edema, inflammation (interstitial; glomerulonephritis; pyelonephritis), renal insufficiency, tubular disorders, urinary disorders, etc.

Scientific Publications

Urine	Acetonuria, albuminuria, colors, glycosuria, hematuria, oliguria, polyuria, proteinuria, pyuria, sediment, etc.
Genitalia male	Atrophy testes, desire sexual disorders, edema, function sexual disorders (ejaculation; erection; fertility; orgasm), inflammation, etc.
Genitalia female	Abortion, cancer, contraception, desire sexual disorders, function sexual disorders, hemorrhage, hormonal dysfunctions, inflammation, lactation disorders, menses disorders, ovaries disorders, uterus disorders, tumors, etc.
Larynx and Trachea	Inflammation, laryngismus, edema (glottis, larynx), etc.
Respiration	Accelerated, arrested, asthma, breathing, bronchitis, difficult, distress, dyspnea, insufficiency, impeded, infection, irregular, slow, sounds, wheezing, etc.
Chest	Acute myocardial infarction, angina pectoris, arrhythmias (atrial fibrillation, heart block, ventricular tachycardia), heart failure, effusion (pericardial, pleural), inflammation (alveolitis, endocarditis, pneumonitis, pericarditis, pleuritis), pulmonary (edema, embolism, fibrosis), etc.
Extremities	Arthrosis, ataxia, edema, exostosis, fractures, gout, incoordination, inflammation (arthritis, myositis, neuritis, flebitis, tendinitis), myopathy, neuropathy, osteoporosis, paralysis, stiffness, weakness, etc.
Generalities	Adult respiratory distress syndrome, anaphylaxis, anemia, anesthesia, convulsions, demyelinating disorders, diabetes, edema, encephalopathy, fatigue, hypertension, hyperthermia, hypotension, hypothermia, influenza, lymphadenopathy, neuropathy, Stevens-Johnson syndrome, thromboembolism, weight (gain, loss), etc.

Conclusion

The main goal of the present study was to develop a method to use modern drugs according to the principle of therapeutic similitude. In this way, it was possible to add 1,251 new drugs to the homeopathic materia medica. On the other hand, by identifying the operation of the principle of similitude also in conventional experimental pharmacology, this study broadened the field of evidence supporting some aspects of the medical rationality of homeopathy in the light of modern scientific research.

Due to the lack of descriptions of idiosyncratic aspects (characteristic symptoms) in most pathogenetic manifestations of modern drugs, which hinders their immediate use for the selection of an individualized remedy, it is suggested an *initial clinical approach* (selection of pathognomonic signs and symptoms, pathological or syndromic diagnosis, etc.) encompassing the full set of manifestations of the individual disease (*totality of symptoms*), despite their poor modalization, in order to choose the specific means of cure.

Due to the high pathogenetic power of modern drugs it is expected that infinitesimal doses will be sufficient to awaken the healing vital reaction of the organism. For this reason, it is suggested to start treatment with potency 6cH (10^{-12} M) and adjust the repetition of doses to

the individual pattern of susceptibility of each patient. In this way it will be possible to evaluate the therapeutic results of these remedies in intermediate concentrations and to relate them to the pathogenetic effects of the ponderal doses while avoiding aggravation and intense adverse events.

However, the actual validation of the method here proposed requires the joint collaboration of homeopathic professionals at different levels: physicians to prescribe the remedies and then report the results (clinical cases), pharmacists to prepare the potentiated remedies, and researchers to design experimental protocols. If such collaborative enterprise could be accomplished, the initial project would be discussed and reviewed, extended and then translated into different languages.

Entitled “*New Homeopathic Medicines: use of modern drugs according to the principle of similitude*” [38], the initial project is divided into 3 parts: (1) *Scientific Basis of the Principle of Similitude in Modern Pharmacology*; (2) *Homeopathic Materia Medica of Modern Drugs*; and (3) *Homeopathic Repertory of Modern Drugs*. In order to make it available to the homeopathic community to learn it, apply it and discuss it, to contribute with criticism, suggestions and revisions, it will be posted soon online in English and Portuguese at www.newhomeopathicmedicines.com [38].

In this way, concluding the research began in 1998 [3], all future studies on this subject will also be posted online with the hope to contribute to the scientific grounding of homeopathy and the homeopathic treatment of modern diseases.

References

1. Hahnemann S. Organon of medicine. 6th Edn. (Translated by William Boericke). New Delhi: B Jain Publishers, 1991.
2. Hahnemann S. Essay on a new principle for ascertaining the curative power of drugs, with a few glances at those hitherto employed. In: Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).
3. Teixeira MZ. Semelhante cura semelhante: o princípio de cura homeopático fundamentado pela racionalidade médica e científica [Similar cures similar: the homeopathic cure principle based by the medical and scientific rationality]. São Paulo: Editorial Petrus, 1998.
4. Teixeira MZ. Similitude in modern pharmacology. *Br Homeopath J.* 1999; 88(3): 112-120.
5. Teixeira MZ. Evidence of the principle of similitude in modern fatal iatrogenic events. *Homeopathy.* 2006; 95(4): 229-236.
6. Teixeira MZ. NSAIDs, Myocardial infarction, rebound effect and similitude. *Homeopathy.* 2007; 96(1): 67-68.
7. Teixeira MZ. Bronchodilators, fatal asthma, rebound effect and similitude. *Homeopathy.* 2007; 96(2): 135-137.

8. Teixeira MZ. Antidepressants, suicidality and rebound effect: evidence of similitude? *Homeopathy*. 2009; 98(1): 114-121.
9. Teixeira MZ. Statins withdrawal, vascular complications, rebound effect and similitude. *Homeopathy*. 2010; 99(4): 255-262.
10. Teixeira MZ. Homeopathic use of modern medicines: utilisation of the curative rebound effect. *Med Hypotheses*. 2003; 60(2): 276-283.
11. Teixeira MZ. 'Paradoxical strategy for treating chronic diseases': a therapeutic model used in homeopathy for more than two centuries. *Homeopathy*. 2005; 94(4): 265-266.
12. Dudgeon RE. Lectures on the theory and practice of homoeopathy. New Delhi: B Jain Publishers; 1982 (Reprint edition). Lectures VII e XII.
13. Hughes R. A manual of pharmacodynamics. 6th Edn. New Delhi: B Jain Publishers; 1980 (Second reprint edition). Lecture II.
14. Hahnemann S. Hahnemann S. Alguns tipos de febres contínuas e remitentes. In: Dudgeon RE, Escritos menores de Samuel Hahnemann. São Paulo: Editora Organon; 2006.
15. Hahnemann S. Cura e prevenção da febre escarlate. In: Dudgeon RE, Escritos menores de Samuel Hahnemann. São Paulo: Editora Organon; 2006.
16. Hahnemann S. Sobre o poder de doses pequenas de medicamento em geral, e da *Belladonna* em particular. In: Dudgeon RE, Escritos menores de Samuel Hahnemann. São Paulo: Editora Organon; 2006.
17. Hahnemann S. Tratamento do tifo ou febre hospitalar que predomina no momento. In: Dudgeon RE. Escritos menores de Samuel Hahnemann. São Paulo: Editora Organon; 2006.
18. Hahnemann S. Como pequenas doses de um medicamento tão atenuado como a homeopatia emprega ainda podem possuir grande poder? In: Dudgeon RE. Escritos menores de Samuel Hahnemann. São Paulo: Editora Organon; 2006.
19. Hahnemann S. A medicina da experiência. In: Dudgeon RE, Escritos menores de Samuel Hahnemann. São Paulo: Editora Organon; 2006.
20. Wettemann M. Hahnemann's use of 'Fragmenta de viribus medicamentorum' in his early medical practice: analysis based on a patient file. *Med Ges Ghesch*. 2001; 20:221-30.
21. Hahnemann S. Reine Arzneimittellehre (German Edn.). Scholarly Publishing Office, University of Michigan Library, 1830. 472p.
22. Hahnemann S. Materia Medica Pura. New Delhi: B Jain Publishers; 1994 (Reprint edition). 2v.
23. Hahnemann S. Chronic Diseases. (Translated by Robert E. Dudgeon). New Delhi: B Jain Publishers; 1983. 2v.
24. World Health Organization (WHO). The Uppsala Monitoring Centre. The importance of pharmacovigilance. Safety monitoring of medicinal products. 2002. Available at: <http://apps.who.int/medicinedocs/pdf/s4893e/s4893e.pdf>
25. European Medicines Agency. Guideline for good clinical practice. London; 2002. Available at: <http://www.ema.europa.eu/pdfs/human/ich/013595en.pdf>
26. World Health Organization (WHO). Council for International Organizations of Medical Sciences. International ethical guidelines for biomedical research involving human subjects. Geneva; 2002. Available at: http://www.cioms.ch/publications/guidelines/guidelines_nov_2002_blurb.htm

27. World Health Organization (WHO). Guidelines for good clinical practice (GCP) for trials on pharmaceutical products. WHO Technical Report Series, No. 850, 1995; Annex 3. Available at: <http://apps.who.int/medicinedocs/pdf/whozip13e/whozip13e.pdf>
28. United States. Code of Federal Regulations. 21 CFR. Food and drugs. 312 Investigational new drug application. Washington; 2003. Available at: <http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/cfrsearch.cfm?cfrpart=312>
29. Marodin G, Goldim JR. Confusions and ambiguities in the classification of adverse events in the clinical research. *Rev Esc Enferm USP*. 2009; 43(3): 690-696. Available at: http://www.scielo.br/pdf/reeusp/v43n3/en_a27v43n3.pdf
30. The United States Pharmacopoeial Convention. The United States Pharmacopeia Dispensing Information. Easton: Mack Printing Co. 2004.
31. World Health Organization (WHO). Council for International Organizations of Medical Sciences. Guidelines for preparing core clinical safety information on drug from CIOMS Working Group III. Geneva; 1995. Available at: <http://www.who-umc.org/DynPage.aspx?id=22684>
32. World Health Organization (WHO). The Uppsala Monitoring Centre. Safety monitoring of medicinal products. Guidelines for setting up and running a Pharmacovigilance Centre. 2000. Available at: <http://www.who-umc.org/graphics/4807.pdf>
33. American Hospital Formulary Service Drug Information. Bethesda: American Society of Hospital Pharmacists. 2000.
34. British Pharmacopoeia Commission. The British Pharmacopoeia. Belfast: The Stationery Office. 2010.
35. European Pharmacopoeia Commission. European Pharmacopoeia. 6th Edn. Belfast: The Stationery Office. 2009.
36. Sweetman SC. Martindale: The Complete Drug Reference. 36th Edn. London: The Pharmaceutical Press. 2009.
37. United States. Food and Drug Administration. MedWatch: The FDA safety information and adverse event reporting program. Form FDA 3500A – Mandatory reporting. Washington; 2009. Available at: <http://www.fda.gov/downloads/Safety/MedWatch/HowToReport/DownloadForms/UCM082728.pdf>
38. Teixeira MZ. New Homeopathic Medicines: use of modern drugs according to the principle of similitude. São Paulo: Marcus Zulian Teixeira. 3v. 2010. Available at: www.newhomeopathicmedicines.com

Homeopathic use of modern drugs: therapeutic application of the organism paradoxical reaction or rebound effect⁵

Abstract

When Samuel Hahnemann systematized the homeopathy and the effects of drugs on the state of human health, he described a primary action of a drug, which is followed by a secondary and opposite action of the organism. Seeking to employ such secondary action or vital reaction of the organism as a therapeutic method, he stipulated the principle of similitude, namely to administer to ill individuals the drugs that cause similar symptoms in healthy individuals (*similia similibus curentur*). In modern pharmacology, the secondary action (vital reaction) is known as rebound effect or paradoxical reaction of the organism. It has been observed after the discontinuation of several classes of palliative (enantipathic) drugs, i.e. those that act according to the principle of contrary (*contraria contrariis curentur*). Besides to being able to cause severe and fatal iatrogenic events when appearing after the palliative use of modern drugs (principle of contrary), the rebound effect might awaken a healing reaction if the very same drugs involved were employed according to the principle of similitude. The validity of the principle of similitude is demonstrated in the scientific evidence of the rebound effect of modern drugs, and it is proposed the homeopathic employment of conventional drugs using their primary actions (therapeutic, adverse and side effects) as pathogenetic manifestations. For this purpose and using as database the monographs described in The United States Pharmacopeia Dispensing Information, it was elaborated a homeopathic materia medica and repertory of 1251 modern drugs, which follow the traditional systematic of the homeopathic model. In this way, the therapeutic scope of homeopathy is broadened through the addition of thousands of new medicines that can be employed in every kind of disease, including the countless modern clinical syndromes.

Introduction

In work that inaugurates the homeopathy, *Essay on a new principle for ascertain the healing powers of drugs* (1), Samuel Hahnemann discusses the pharmacological properties of tens of medicines used at that time and for each one he describes its *direct primary action* on the body, manifested through a series of pathogenetic effects or symptoms, as well as the subsequent *indirect secondary action* developed by the organism to neutralize the former. Hahnemann attributes to the latter the healing power of drugs. To illustrate:

Arsenic (Arsenicum album). *Direct primary action*: tendency to excite spasm in the blood vessels and chills, in daily paroxysms; continual use of large doses gradually causes an almost constant febrile state; decrease of the tonus of the muscular fiber and the sensitiveness of nerves (paralysis); stimulates cough; causes some chronic affections of the skin (with desquamation). *Indirect secondary action*: treatment of intermittent fever with

⁵ Teixeira MZ. Homeopathic use of modern drugs: therapeutic application of the organism paradoxical reaction or rebound effect. *International Journal of High Dilution Research*. 2011; 10(37): 338-352. Available at: <https://highdilution.org/index.php/ijhdr/article/view/456>

daily recurrence, useful in hectic and remittent fever, in some types of paralysis, in cough, in similar diseases of the skin.

Later on, in the “Introduction” of the *Organon of homeopathic medicine* [2], his major work, Hahnemann describes hundreds of examples of involuntary homeopathic cures accomplished by doctors of the “Old School”. In this way, he was able to ground his early observations on the principle of therapeutic similarity on hundreds of bibliographic references stemming from different authors. To continue with the example of arsenic above:

“[...] And whence could arise that curative power of *arsenic* which exhibits in certain species of intermittent fevers, (a virtue attested by so many thousands of examples, but in the practical application of which, sufficient precaution has not yet been observed, and which virtue was asserted centuries ago by *Nicholas Myrepsus*, and subsequently placed beyond a doubt by the testimony of *Slevogt, Molitor, Jacobi, J. C. Bernhardt, Jiingken, Fauve, Brera, Darwin, May, Jackson, and Fowler*), if it did not proceed from its *peculiar faculty of excit ingfever*, as almost every observer of the evils resulting from this substance has remarked, particularly *Amatus Lusitanus, Degner, Buchholz, Heun, and Knape*. We may confidently believe *E. Alexander*, when he tells us that *arsenic* is a sovereign remedy in some cases of angina pectoris, since *Tachenius, Guilbert, Preussius, Thilenius, and Pyl*, have seen it give rise to very strong *oppression of the chest; Gresselius*, to a *dyspnœa approaching even to suffocation*; and *Majault*, in particular, saw it produce *sudden attacks of asthma excited by walking, attended with great depression of the vital powers*”.

In paragraphs 63 to 65 of *Organon of medicine* [3], Hahnemann explicitly grounds the “mechanism of action of drugs” and the “principle of similitude or similarity” on the *primary action of the drug* and the corresponding *secondary action or vital reaction of the organism*:

“Every agent that acts upon the vitality, every medicine, deranges more or less the vital force, and causes a certain alteration in the health of the individual for a longer or a shorter period. This is termed *primary action*. [...]. To its action our vital force endeavors to oppose its own energy. This resistant action is a property, is indeed an automatic action of our life-preserving power, which goes by the name of *secondary action or counteraction*”. (*Organon*, paragraph 63)

By giving to ill individuals drugs that caused similar symptoms in healthy experimental subjects (*similia similibus curentur*), the application of the principle of therapeutic similarity seeks to elicit a healing homeostatic reaction against disease by inducing the organism to react against its own disturbs. Described in 1860 by Sorbonne physiologist Claude Bernard as “fixité du milieu intérieur”, the term “homeostasis” was minted in 1929 by Harvard physiologist Walter Bradford Cannon to name the tendency or ability of living beings to keep constant their internal environment through self-adjustments of their physiological processes.

Emphasizing that such secondary action of the organism (opposed in character to the primary action of the drug) is observed “in each and every instance with no exceptions”, with ponderable or infinitesimal doses, in both healthy and ill individuals, Hahnemann rises

the principle of similitude to the level of a “natural law” (*Organon*, paragraphs 58, 61, 110-112).

Hahnemann had resource to hypothetical syllogism “modus tollens” (“inference by negation” or “indirect proof”) to validate the homeopathic method of treatment (principle of similitude). In this way, in paragraphs 56 to 67 of *Organon of medicine* [3] he subjected to critical analysis the so-called enantiopathic or antipathic method of treatment (principle of contrary). Bringing up the instances of several drugs used at the time, which were indicated on the grounds of a primary action contrary to the annoying symptoms (*contraria contrariis curentur*), Hahnemann showed that after an initial “antipathic slight (short-lasting) relief, [an] aggravation always follows with no exception whatsoever” of the thus palliated symptoms:

“Important symptoms of persistent diseases have never yet been treated with such palliative, antagonistic remedies, without the opposite state, a relapse - indeed, a palpable aggravation of the malady - occurring a few hours afterwards. For a persistent tendency to sleepiness during the day the physician prescribed coffee, whose primary action is to enliven; and when it had exhausted its action the day - somnolence increased; - for frequent waking at night he gave in the evening, without heeding the other symptoms of the disease, opium, which by virtue of its primary action produced the same night (stupefied, dull) sleep, but the subsequent nights were still more sleepless than before; [...] - weakness of the bladder, with consequent retention of urine, was sought to be conquered by the antipathic work of cantharides to stimulate the urinary passages whereby evacuation of the urine was certainly at first effected but thereafter the bladder becomes less capable of stimulation and less able to contract, and paralysis of the bladder is imminent; - with large doses of purgative drugs and laxative salts, which excite the bowels to frequent evacuation, it was sought to remove a chronic tendency to constipation, but in the secondary action the bowels became still more confined; [...] How often, in one word, the disease is aggravated, or something even worse is effected by the secondary action of such antagonistic (antipathic) remedies, the old school with its false theories does not perceive, but experience teaches it in a terrible manner”. (*Organon*, paragraph 59)

In the terms of modern scientific reason and physio-pharmacological concepts, the *primary action* adduced by Hahnemann corresponds to the *therapeutic, adverse and side effects of conventional drugs*. The *secondary action* or *vital reaction*, in turn, corresponds to the *rebound effect* or *paradoxical reaction of the organism*, which has been observed after the discontinuation of several classes of drugs that act contrarily to the symptoms of diseases (palliative drugs, enantiopathic or antipathic) [4-11].

Analogously to traditional secondary action of homeopathic medicines, the *rebound effect of modern drugs* can be used for therapeutic purposes [12-14], namely to stimulate homeostatic healing reactions provided they are prescribed according to the principle of similarity of symptoms as it is described below.

This article presents the conclusion of previous research aiming at a method to use modern drugs according to the principle of therapeutic similitude. The first part discusses the

validity of the principle of similitude on the grounds of the scientific evidence for the rebound effect or paradoxical reaction of modern drugs, and the possibility of using the adverse effects of conventional drugs as homeopathic pathogenetic effects. In the second part it is described the elaboration of a homeopathic materia medica and repertory comprising the primary effects (therapeutic and adverse/ side effects) of modern drugs described in *The United States Pharmacopeia Dispensing Information (2004)*, illustrating and systematizing their therapeutic application in present day diseases.

Evidence of similitude in modern pharmacology

The same hypothetic “modus tollens” used by Hahnemann to ground the principle of therapeutic similitude corresponds to the “null hypothesis” of modern statistical methods. This author also applied it for the last decade to study the “sad results of the use of antagonistic medicines (principle of contrary)” of modern drugs according to modern physio-pharmacological notions such as *rebound effect* or *paradoxical reaction of the organism* (viz., the *secondary action or vital reaction* of the homeopathic model).

Bridging the gap between the homeopathic principle of treatment and modern pharmacology, there are countless reports in pharmacological compendia and clinical and experimental trials published in scientific journals, which point to a *secondary reaction of the organism opposing the primary action of a drug*, which thus confirm Hahnemann’s early observations. Such secondary action, aiming at keeping organic homeostasis, has been named by modern scientific reason as *rebound effect* or *paradoxical reaction of the organism*.

To illustrate: drugs classically used in the treatment of *angina pectoris* (β -blockers, calcium channel blockers, nitrates, etc.) with beneficial effects in their primary effect (anti-angina), might awaken an paradoxical increase of the frequency and intensity of chest pain after discontinuation or irregular use of doses, which sometimes does not respond to any therapeutic means. Drugs used for the control of *arterial hypertension* (α -2 agonists, β -blockers, ACE inhibitors, MAO inhibitors, nitrates, sodium nitroprusside, hydralazine, etc.) might produce rebound arterial hypertension as a paradoxical reaction of the organism to the primary stimulus; *antiarrhythmic* drugs (adenosine, amiodarone, β -blockers, calcium channel blockers, disopyramide, flecainide, lidocaine, mexiletine, moricizine, procainamide, quinidine, digital, etc.) may awaken a rebound exacerbation of basal ventricular arrhythmias, when treatment is interrupted. *Anticoagulant* drugs (argatroban, bezafibrate, heparin, salicylates, warfarin, clopidogrel, etc.), employed due to their primary effect in the prophylaxis of thrombosis, can promote thrombotic complications as paradoxical reaction of the organism. In the use of psychiatric drugs such as *anxiolytics* (barbiturates, benzodiazepines, carbamates, etc.), *sedative-hypnotics* (barbiturates, benzodiazepines, morphine, promethazine, zopiclone, etc.), *stimulants of the central nervous system* (amphetamines, caffeine, cocaine, mazindol, methylphenidate, etc.), *antidepressant* (tricyclic, MAO inhibitors, etc.) or *antipsychotic* (clozapine, phenothiazines,

haloperidol, pimozide, etc.) it can be observed a paradoxical reaction of the organism, seeking to keep organic homeostasis, promote the appearance of symptoms contrary to the ones expected of their primary therapeutic use, consequently worsening the initial clinical picture. Drugs with *anti-inflammatory* primary action (corticoids, ibuprofen, indomethacin, paracetamol, salicylates, etc.) might trigger paradoxical reactions of the organism that increase inflammation together with the serum concentration of its mediators. Drugs with *analgesic* primary action (caffeine, calcium channels blockers, clonidine, ergotamine, methysergide, opiates, salicylates, etc.) can exhibit significant hyperalgesia as rebound effect. *Diuretics* (furosemide, torasemide, triamterene, etc.) enantiopathically used to diminish the volume of plasma (edema, arterial hypertension, congestive heart failure, etc.) may cause rebound retention of sodium and potassium thus increasing the basal volume of plasma. Drugs primarily used as *anti-dyspeptic* (antacids, H₂ antagonists, misoprostol, sucralfate, etc.) in the treatment of gastritis and gastro-duodenal ulcers might promote, after the primary decrease of acidity, rebound increase of the production of hydrochloric acid by the stomach eventually causing perforation of chronic gastro-duodenal ulcers. *Bronchodilators* (adrenergic drugs, sodium chromoglycate, epinephrine, ipratropium, nedocromil, etc.) used in the treatment of bronchial asthma can worsen bronchial constriction as paradoxical response of the organism to the interruption or discontinuation of treatment. Etc. [4,5]

Evidenced by clinical and experimental pharmacology [9,10], the properties of the *paradoxical reaction (rebound effect) of the organism* are the same as the ones of the *homeopathic vital reaction (secondary action)* described by Hahnemann (*Organon of medicine*, paragraphs 59, 64, 69): (i) it appears only in susceptible individuals (around 5% of the population), who present in their constitution symptoms similar to the pathogenetic effects of the drug; (ii) it does not depend on the drug, repetition of doses or type of symptoms (disease); (iii) it appears after the primary action of the drug (discontinuation), as an automatic manifestation of the organism; (iv) it induces an organic state (symptoms) opposite and greater in intensity and/or duration than the primary action of the drug; (v) the magnitude of its effect is proportional to the intensity of the primary action of the drug.

As further peculiar characteristics of this phenomenon, the *rebound effect* or *paradoxical reaction of the organism* manifests itself within a variable period of time (hours to weeks) after the interruption or discontinuance of treatment. It also lasts a variable period of time (hours to weeks) as a function of the characteristic of the drug and the idiosyncrasy of each individual.

Evidence of similitude in the fatal iatrogenic events of modern drugs

Despite the countless number of scientific studies proving the *rebound effect of modern drugs* that have been published in high impact factor journals, whenever the mechanism of action is discussed in either learning contexts or public divulgation, it is systematically neglected. In this way, it is dismissed a “natural phenomenon” (described by homeopathy

more than two centuries ago) that could avoid countless fatal iatrogenic events arising from the use of modern enantiopathic drugs. The situation could be the exact opposite were such evidences included within the body of modern medical knowledge.

Despite the idiosyncratic nature of such phenomenon, which appears in about 5% of individuals – and for the same reason, justifies the need to *individualize medicines* in homeopathic treatments – contemporary scientific evidences point to the occurrence of *severe and fatal iatrogenic effects* as a function of the paradoxical reaction of the organism following the discontinuance of several classes of modern enantiopathic drugs [6].

Recent meta-analyses have shown that, since they have a primary anticoagulant action, all types of non-steroidal anti-inflammatory drugs (NSAIDs), either selective (rofecoxib, celecoxib, etc.) or non-selective (aspirin, diclofenac, naproxen, ibuprofen, etc.) inhibitors of enzyme cyclooxygenase awaken thrombogenic paradoxical reaction after discontinuation, leading to a significant increase of the incidence of thrombosis and causing fatal vascular events (acute myocardial infarction – AMI, and encephalic vascular accidents – EVA) [7].

Analogously, further meta-analyses indicate that long-acting β -agonist bronchodilators (salmeterol, formoterol, etc.) after their primary bronchodilator action cause significant irreversible and fatal paradoxical bronchospasm [8]. Several studies have shown that antidepressant agents inhibiting the recapture of serotonin (selective inhibitors of serotonin reuptake, SISRs) promote a rebound exacerbation of suicidal ideas after an initial improvement of this same symptom [9]. The same is the case of the various types of statins (simvastatin, lovastatin, atorvastatin, etc.) resulting in paradoxical and fatal vascular events (AMI, EVA) after a primary increase of their pleiotropic or vascular protective effects [10]. Recent research shows that, similar to other anti-dyspeptic agents, proton-pump inhibitors (PPIs, such as omeprazole, pantoprazole, esomeprazole, etc.) cause rebound hypergastrinemia and acid hypersecretion after an initial improvement of gastric acidity, thus exacerbating gastritis and ulcers (perforation of chronic ulcers) gastric cancer, carcinoid tumor and so forth [11].

By comparison to placebo, it has been observed a risk 3.4 times higher of fatal vascular events after the discontinuance of aspirin, 1.52 higher after the discontinuance of NSAIDs and 1.67 after the discontinuance of rofecoxib [7]. The risk of fatal bronchoconstriction was 4 times higher after discontinuance of long-acting bronchodilators, which 1 episode of rebound bronchospasm followed by death per 1000 patients/year/use, corresponding to 4,000-5,000 deaths/year in the USA (40,000-50,000 worldwide) due to the high level of use of such drugs [8].

The risk of suicidal behavior was 6 times higher after discontinuance of SISRs, which represents about 5 rebound suicidal events per 1000 teenage patients/year/use, i.e. 16,500 suicidal ideas or behaviors/year only in teenagers and only in the USA [9]. After discontinuation of statins by comparison to no treatment, mortality risk was 1.69 higher, the risk of fatal vascular events was 19 times higher, corresponding to hundreds of thousands

of episodes due to the high level of use of such drugs [10]. Regarding PPIs, 40% of users report rebound acid hypersecretion [11].

The average time for manifestation of rebound effect or paradoxical reaction after discontinuation of treatment does not vary among different types of drugs, e.g. 10 days for aspirin, 14 days for NSAIDs, 9 days for rofecoxib, 7 days for SISRs and 7 days for statins. Regarding anti-dyspeptic agents, rebound acid hypersecretion occurs within 1 hour after a standard dose of antacids, 2 days after a 4-week-course of H₂-receptor antagonists and 1 or 2 weeks after a 4 or 8 week-course of PPIs. Rebound phenomena last 10 days after a 4-week-course of H₂-receptor antagonists and 2 to 4 weeks after a 4 or 8-week-course of PPIs. Duration of treatment did not show direct correlation with the appearance of rebound effect, however, drugs with intense palliative action i.e. that significantly suppress the primary symptoms of disease, exhibit a proportional frequency/intensity of paradoxical reactions. [6-11]

Homeopathic pathogenetic trials (HPTs)

In order to learn the healing properties of drugs to allow for the application of the principle of therapeutic similitude, homeopathy employs HPTs as its model of pharmacological clinical research. HPTs can be equated to the modern “Phase I studies” and the take into account all types of primary actions, the so-called pathogenetic effects or symptoms (mental, general or physical), awakened by drugs on the state of human health. These very same effects are called by modern pharmacology as *therapeutic, adverse or side effects* of drugs.

Despite Hahnemann laid down the ideal stipulations to carry out HPTs (*Organon of medicine*, paragraphs 105-145), the *homeopathic materia medica* is actually composed by a compilation of the signs and symptoms recorded along the testing of thousands of drugs in both healthy and ill individuals, in ponderable (substances in raw state) and diluted (dynamized medicines) doses. In this way, it comprises the pictures of artificial states of disease needed to apply the homeopathic therapeutic method. In this regard, it is worth to observe that the historical revisions carried out by Robert Ellis Dudgeon and Richard Hughes show that most of the symptoms listed in the works of homeopathic materia medica written by Hahnemann (*Fragmenta de viribus medicamentorum, Materia Medica Pura and Chronic Diseases*) arises from the use of substances in ponderable doses and/or on ill individuals [14-16].

Analogously, later homeopaths published new HPTs or additions to the older ones carried out in the same manner, from which the following are still employed in present-day homeopathic clinical practice: C. G. C. Hartlaub and C. F. Trinks (*Reine Arzneimittellehre*, 1828-1831, Germany), George H. G. Jahr (*Manual of Homeopathic Medicines*, 1835, Germany), Edwin M. Hale (*New Remedies*, 1867-1873, USA), Timothy F. Allen (*The Encyclopedia of Pure Materia Medica*, 1874-1879, USA), etc. [14-16]

Accordingly, in the next section it is described *adverse events of modern drugs* that can be seen from the homeopathic perspective as *primary actions (pathogenetic manifestations)* that might elicit a healing vital reaction (paradoxical reaction or rebound effect) when applied according to the principle of therapeutic similitude.

Use of adverse events as pathogenetic manifestations of modern drugs

Adverse event (AE) or reaction (AR) to drugs are defined by the World Health Organization (WHO) [17] as “a response to a drug which is noxious and unintended, and which occurs at doses normally used in man for the prophylaxis, diagnosis, or therapy of disease, or for the modification of physiological function”.

During the study of a new drug (phases I to IV studies) [18], besides the expected therapeutic effect, also adverse events appear (adverse/ side effects), which can be classified according to criteria such as *predictability, frequency, intensity, causality* and *severity* [19]. For the purposes of the present study, namely to assimilate the adverse events of modern drugs to *pathogenetic effects (new symptoms)* of such drugs on the state of health of human beings, the criteria that make evident this relationship are *predictability, frequency* and *causality*.

According to the criterion of *predictability*, “predictable” adverse events are the ones that are already described in the literature (drug monographs); conversely, the “unpredictable” ones have not yet been reported. In the present study, it was used the adverse/ side effects described in drug monographs (*The United States Pharmacopeia Dispensing Information - USP DI*) [20], therefore they are all “predictable” and are likely to reappear in future trials.

In turn, “predictable” adverse events can be further classified according to their *frequency* or *incidence of expression* [21] as: (i) “very common”: frequency higher than or equal to 10.0%; (ii) “common”: higher than or equal to 1.0% and lower than 10.0%; (iii) “not common”: higher than or equal to 0.1% and lower than 1.0%; (iv) “rare”: higher than or equal to 0.01% and lower than 0.1%; and (v) “very rare”: lower than 0.01%.

The drug monographs used in the present study (*USP DI*) [20], classify the adverse/side effects of drugs according to their frequency in three groups: (i) “more frequent”: higher than or equal to 4.0%; (ii) “less frequent”: higher than or equal to 1.0% and lower than 4.0%; and (iii) “rare”: lower than 1.0%.

It is worth to remind here that before any new drug can be approved and marketed it must be subjected to phases I to III studies, where their adverse events are observed in thousands of individuals. Phase IV studies conversely refer to the surveillance and vigilance of the effects of a drug after it entered the market, which widens the scope of observation to tens of thousands of individuals and also on the long run. The results are incorporated then into

the drug monographs, which are periodically updated (*USP DI*). In this way, the adverse events used in the present proposal as pathogenetic manifestations of drugs (new symptoms) were observed in the lowest frequencies (about 1.0%) in hundreds of individuals, a fact that strengthens the validity of the present proposal.

Regarding the aspect of *causality*, according to the WHO [19, 22], an adverse event is related to a drug according to the following categories: “defined”, “probable”, “possible”, “improbable”, “conditional” and “unclassifiable”, depending on the degree of certainty of the corresponding interaction. By definition, adverse events whose causality is rated as “defined” or “probable” exhibit: temporal sequence (i.e., there is a temporal connection between the administration of the drug and the appearance of the adverse event); typical reaction; they disappear when the drug is discontinued; and *cannot be explained out of the underlying disease or other therapeutic means*.

The causal link between a drug and an adverse event (*risk evaluation*) is retrospectively established as of cause-effect. “Predictable” and “quantified” (i.e. determined *frequency*) have “probable causality” [19]. For this reason, the adverse/side effects used in the present study (*USP DI*) have evident causal relation to the corresponding drugs (*predicted risk*) and thus are *new symptoms that belong to the drug*, as Hahnemann stipulated in paragraph 142 of *Organon of medicine* [3].

Homeopathic use of modern drugs: therapeutic application of the rebound effect

Some instances of involuntary homeopathic cures with conventional drugs are reported in the scientific literature. Biphasic contraceptives (*anteovin*) were used to promote rebound ovulation and consequent pregnancy in women with functional sterility; stimulants of the central nervous systems (*methylphenidate*) were used to calm down and improve attention in children with Attention Deficit Hyperactivity Disorder (ADHD); stimulants of gonadotropin releasing hormone (*leuprorelin*) were used in the treatment of testosterone-dependent prostate tumors; immunosuppressant agents (*thiomorpholine analogous to prazosin*) awakened rebound immune-stimulation after primary immunosuppression, and so forth [4,5].

Retracing the steps of classic homeopathy to conclude an early stage of research [12-14], this author systematized the use of modern drugs according to the principle of therapeutic similitude. This is, it is proposed to stimulate the healing rebound effect or paradoxical reaction (vital reaction) of the organism through the administration of drugs (in infinitesimal doses) that caused similar symptoms on the state of human health (healthy or ill individuals).

In order to make this proposal feasible, it was needed to elaborate a *Homeopathic Materia Medica of Modern Drugs* grouping together all primary effects (therapeutic, adverse and side effects) of drugs (*USP DI*) according to the traditional scheme of chapters of the homeopathic materia medica. At the same time, it was given special value to the frequency of appearance of symptoms during the different phases of the study of drugs.

To facilitate the actual *selection of an individualized medicine* (similarity with the totality of symptoms of the patient) – which is the essential premise for successful homeopathic treatment – the second stage involved the elaboration of a *Homeopathic Repertory of Modern Drugs*, where symptoms and their corresponding remedies are arranged as in the classic homeopathic repertories.

Homeopathic Materia Medica of Modern Drugs (HMMMD)

As the initial source for the HMMMD it was chosen *The United States Pharmacopoeia Dispensing Information (USP DI, 2004)* since its information is reliable and it has no conflict of interests with the pharmaceutical industry.

All primary effects (pathogenetic manifestations), viz. therapeutic, adverse and side effects of each drug were systematized according to the pattern of the traditional works of homeopathic materia medica and allocated in the corresponding chapters: Mind; Vertigo; Head; Eye; Vision; Ear; Hearing; Nose; Face; Mouth; Teeth; Throat; External Throat; Stomach; Abdomen; Rectum; Stool; Bladder; Kidneys; Prostate Gland; Urethra; Urine; Genitalia Male; Genitalia Female; Larynx and Trachea; Language, Conversation and Voice; Respiration; Cough; Expectoration; Chest; Back; Extremities; Nails; Sleep; Dreams; Chill; Fever; Perspiration; Skin e Generalities. Diagnostic Tests were grouped together in a new chapter.

According to the homeopathic tradition and in conformity with the classification of adverse events mentioned above [20,21], the “*frequency of incidence*” of pathogenetic symptoms (therapeutic, adverse and side effects) was scored, and the scores (*points*) are represented in the text with *different fonts*: “*very frequent*” (therapeutic effects) / 5 points / bold italic font; “*more frequent*” ($\geq 4\%$) / 4 points / bold font; “*less frequent*” ($\geq 1\%$ and $< 4\%$) / 3 points / italic underlined font; “*rare*” ($< 1\%$) / 2 points / italic font; “*overdose*” / 1 point / normal font.

In the structure of pathogenetic symptoms in HMMMD, syndromes (viz., modern clinical diagnoses) were kept as such, whereas their constituting symptoms were distributed among the respective chapters of the HRMD. In its study, the pathogenetic effects (symptoms) of 1251 modern drugs were systematized according to the homeopathic model allowing for their therapeutic application on the grounds of the principle of similarity. The overall structure is illustrated with the example of PPI drug “Pantoprazole” (Table 1).

Table 1. Example of systematization of pathogenetic effects in HMMMD

Pantoprazole (Gastric acid pump inhibitor)	
<i>Chapters</i>	<i>Primary actions or pathogenetic effects</i>
Mind	<u>anxiety</u> ; <u>confusion</u>
Vertigo	<u>dizziness</u> ; <u>vertigo</u> (dizziness; feeling of constant movement of self or surroundings; sensation of spinning)
Head	headache ; <u>migraine</u>
Vision	<u>Blurred vision</u>
Eye	<u>angioedema</u> (large, hive-like swellings on eyelids); <u>neuropathy</u> , <u>optic</u> , <u>anterior ischemic</u> (blindness; blurred vision; decreased vision; loss of vision, sudden)
Vision	<u>blurred vision</u>
Hearing	<u>tinnitus</u> (ringing or buzzing in the ears)
Nose	<u>rhinitis</u> (runny or stuffy nose); <u>sinusitis</u> (aching, fullness, or tension in area of affected sinus; headache; runny nose)
Face	<u>angioedema</u> (large, hive-like swellings on face, lips)
Mouth	<u>angioedema</u> (large, hive-like swellings on mouth, and/or tongue); <u>salivation</u> , <u>increased</u> ; <u>speech disorder</u> (difficulty in speaking)
Throat	<u>pharyngitis</u> (sore throat)
External Throat	<u>pain</u> , <u>neck</u>
Stomach	<u>belching</u> ; <u>dyspepsia</u> (indigestion); <u>gastroenteritis</u> (abdominal pain; anorexia; diarrhea; nausea; weakness); <u>nausea</u> ; <u>vomiting</u>
Abdomen	<u>flatulence</u> ; <u>gastroenteritis</u> (abdominal pain; anorexia; diarrhea; nausea; weakness); <u>pain</u> , <u>abdominal</u> ; <u>pancreatitis</u> (abdominal pain; nausea; vomiting); <u>failure</u> , <u>hepatic</u> (headache; stomach pain; continuing vomiting; dark-colored urine; general feeling of tiredness or weakness; light-colored stools; yellow eyes or skin)
Rectum	diarrhea ; <u>rectal disorders</u>
Bladder	<u>infection</u> , <u>urinary tract</u> (difficulty in urinating; frequent urge to urinate; painful urination)
Kidneys	<u>nephritis</u> , <u>interstitial</u> (bloody or cloudy urine; fever; skin rash; swelling of feet or lower legs; greatly decreased frequency of urination or amount of urine)
Respiration	<u>bronchitis</u> (chills; cough; headache; hoarseness); <u>dyspnea</u> (shortness of breath); <u>infection</u> , <u>upper respiratory tract</u> (cough; runny or stuffy nose; sore throat)
Cough	<u>cough</u> , <u>increased</u>
Chest	<u>bronchitis</u> (chills; cough; headache; hoarseness); <u>pain</u> , <u>chest</u> ; tachycardia, mild (fast, pounding, or irregular heartbeat or pulse)
Back	<u>pain</u> , <u>back</u>
Extremities	<u>arthralgia</u> (pain in joints); <u>hypertonia</u> (muscle rigidity or stiffness)
Sleep	<u>insomnia</u> (trouble in sleeping)
Skin	<u>erythema multiforme</u> (pain in joints or muscles; itching or redness of skin; bull's eye-like lesion on skin); <u>itching</u> ; <u>necrolysis</u> , <u>epidermal</u> , <u>toxic</u> (itching or redness of skin; loosening and/or stripping off of top layer of skin; skin tenderness with burning); <u>rash</u>
Generalities	<u>anaphylaxis</u> (changes in facial skin color; fast or irregular breathing; puffiness or swelling of the eyelids or around the eyes; shortness of breath, troubled breathing, tightness in chest, and/or wheezing; skin rash, hives, and itching); <u>angioedema</u> ;

asthenia (loss of energy or strength; weakness); *erythema multiforme* (pain in joints or muscles; itching or redness of skin; bull's eye-like lesion on skin); *flu-like syndrome* (abdominal pain; chills; cough; headache; pain in joints or muscles; runny nose; sneezing; sore throat); *hyperglycemia* (increased frequency and volume of urination; unusual thirst); *hypokinesia* (difficulty in moving); *infection*; *injection site reaction* (bleeding; blistering; burning; coldness; discoloration of skin; feeling of pressure; hives; infection; inflammation; itching; lumps; numbness; pain; rash; redness; scarring; soreness; stinging; swelling; tenderness; tingling; ulceration; warmth); *jaundice* (yellow eyes or skin); *pain*; *Stevens-Johnson syndrome* (aching joints and muscles; blistering, loosening, peeling, or redness of skin; unusual tiredness or weakness); *pancytopenia* (high fever; chills; unexplained bleeding or bruising; bloody, black, or tarry stools; pale skin; unusual tiredness or weakness; cough; shortness of breath; sores, ulcers, or white spots on lips or in mouth; swollen glands); *rhabdomyolysis* (dark-colored urine; fever; muscle cramps or spasms; muscle pain or stiffness; unusual tiredness or weakness); vasodilation (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or lightheaded; sweating)

Homeopathic Repertory of Modern Drugs (HRMD)

Pathogenetic symptoms listed in HMMMD were distributed following the traditional model of homeopathic repertories. Consequently it was adopted the same arrangement of chapters and all drugs which awakened a same symptom are grouped together under *rubrics* and *subrubrics*. Drugs are mentioned by *abbreviations* of their names and different fonts indicate the score of the relative “frequency of incidence” of each one. To facilitate the search of the most accurate rubric in all chapters, “crossed references” point to similar pathogenetic manifestations. The overall structure is illustrated with the example of rubric “Cancer”, included in chapter “Generalities” of HRMD (Table 2).

Table 2. Example of description of symptoms in HRMD (Chapter Generalities)

Cancer (See Tumors)

- **breast:** *DrosE-syst.*, *Estro-syst.*
 - **invasive:** *EstroPO-syst.*
- **carcinoma**
 - **breast:** *Adal-syst.*
 - **gastrointestinal:** *Adal-syst.*
 - **hepatocellular:** *AnabS-syst.*, *DrosEE-syst.*, *EstroPO-syst.*
 - **women having a predisposing or pre-existing condition, especially those who smoke tobacco:** *DrosEE-syst.*, *EstroPO-syst.*
 - **liver:** *Cyp-syst.*
 - **prostatic carcinoma disease flare, transient:** *Gos-syst.*
 - **skin:** *Adal-syst.*
 - **squamous:** *Imiq-top.*
 - **urogenital:** *Adal-syst.*

- **endometrial**: *ConjE-syst.*, *DrosE-syst.*, *Estro-syst.*, *Estro-vag.*
- **leukemia** (bone pain): *AnabS-syst.*
 - **myeloid or myelogenous, acute (bone pain)**: *Docet-syst.*, *Ibr-syst.*
 - **non-lymphocytic, acute (tiredness; weakness)**: *Clod-syst.*
 - **promyelocytic leukemia (APL) differentiation syndrome, acute**: *ArsTr-syst.*
 - **secondary**: *Epir-syst.*
- **lymphoid syndromes** (including lymphoid hyperplasia, pseudolymphomas, and pseudo-pseudolymphomas): *AntconH-syst.* [*Phenytoin*]
- **lymphoma**: *Adal-syst.*, *AnthyGR-syst.*, *Cyclosp-syst.*, *Etan-syst.*
 - **increase in the incidence of**: *AnthyGR-syst.*
 - **lymphoma like reaction**: **Adal-syst.**
 - **post-transplant lymphoproliferative disease (PTLD), increase in the incidence of**: *AnthyGR-syst.*
- **malignancies**: *Alef-syst.*, *Etan-syst.*
- **neuroblastoma**: *DiphtTTH-syst.*
- **ovarian**: *ConjE-syst.*
- **skin, non-melanoma**: *Etan-syst.*

Adal-syst.: Adalimumab (Systemic); Alef-syst.: Alefacept (Systemic); AnabS-syst.: Anabolic Steroids (Systemic); AntconH-syst. [*Phenytoin*]: Anticonvulsants, Hydantoin (Systemic) [*Phenytoin*]; AnthyGR-syst.: Anti-thymocyte Globulin (Rabbit) (Systemic); ArsTr-syst.: Arsenic Trioxide (Systemic); Clod-syst.: Clodronate (Systemic); ConjE-syst.: Conjugated Estrogens and Medroxyprogesterone For Ovarian Hormone Therapy (OHT) (Systemic); Cyclosp-syst.: Cyclosporine (Systemic); Cyp-syst.: Cyproterone (Systemic); DiphtTTH-syst.: Diphtheria and Tetanus Toxoids and Acellular Pertussis Adsorbed and Hepatitis B (Recombinant) and Inactivated Poliovirus Vaccine Combined (Systemic); Docet-syst.: Docetaxel (Systemic); DrosE-syst.: Drospirenone and Estradiol (Systemic); DrosEE-syst.: Drospirenone and Ethinyl Estradiol (Systemic); Epir-syst.: Epirubicin (Systemic); Estro-syst.: Estrogens (Systemic); Estro-vag.: Estrogens (Vaginal); EstroPO-syst.: Estrogens and Progestins Oral Contraceptives (Systemic); Etan-syst.: Etanercept (Systemic); Gos-syst.: Goserelin (Systemic); Ibr-syst.: Ibritumomab Tiuxetan (Systemic);_Imiq-top.: Imiquimod (Topical).

Conclusion

By applying the hypothetical syllogism “modus tollens” employed initially by Hahnemann to give scientific grounding to homeopathic therapeutics, this author has been working for the last decade in founding the principle of therapeutic similitude on the phenomenon of rebound effect or paradoxical reaction of modern drugs. The first phase of this study was a thorough revision of literature on these studies on clinical and experimental pharmacology. The second stage consisted in developing a methodology to employ modern drugs according to the therapeutic similitude, which resulted in a proposal to include 1251 new drugs in the homeopathic materia medica.

Although ideally HPTs ought to be carried out with drugs in infinitesimal doses administered to healthy individuals in order to avoid confusing true pathogenetic effects and the symptoms of disease, the traditional works on homeopathic materia medica compile together signs and symptoms recorded in tests of drugs on healthy and ill individuals,

elicited by ponderable and infinitesimal doses. In this way, they contain all the pictures of artificial states of disease needed to apply the principle of therapeutic similarity. In clinical research of new drugs (Phase I to IV studies) the aspects of predictability, frequency and causality of adverse events described in monographs indicate that they also are pathogenetic manifestations (new symptoms) of drugs, thus endorsing their use according to the principle of similitude.

In order to widen the range of application of therapeutic similitude to thousands of new drugs, each one of them tested on thousands of individuals accordingly to strict protocols, it was elaborated a HMMMD and a HRMD following the traditional homeopathic model. In the former, the symptoms of each drug were distributed in chapters following the classic homeopathic tradition and were scored according to their relative frequency of appearance. In the latter, chapters group together all drugs that awakened a same symptom with their corresponding score. In this way, it will be possible to employ new drugs to relieve clinical disturbs commonly treated by homeopathy as well as the modern signs, symptoms and complex syndromes (Table 3).

Table 3. Examples of homeopathic therapeutic use of conventional drugs

<i>Chapters</i>	<i>Homeopathic therapeutic use of conventional drugs</i>
Mind	Anxiety, delirium, dementia, depression, forgetfulness, hyperactivity, irritability, lethargy, mania, panic, schizophrenia, suicidal disposition, etc.
Vertigo	Dizziness, faintness, gait disorders, lightheadedness, orthostatic hypotension, syncope, unsteadiness, vertigo, etc.
Head	Aneurysm, arteritis, encephalitis, headache, intracranial hypertension, meningitis, migraine, seborrhea, stroke, etc.
Eye	Astigmatism, cataract, cornea disorders, glaucoma, inflammations, keratopathy, necrosis, neuritis, papilledema, retina disorders, etc.
Vision	Amblyopia, blindness, blurred, diplopia, hypermetropia, myopia, presbyopia, scotoma, etc.
Hearing	Buzzing, deafness, hyperacusis, hypoacusis, ringing, tinnitus. etc.
Nose	Congestion, coryza, dryness, epistaxis, rhinitis, sinusitis, sneezing, etc.
Face	Gestures, heat flushes, hirsutism, neuritis, paralysis, swelling, trismus, etc.
Mouth	Bleeding, dryness, gingivitis, glossitis, mucositis, sialorrhea, speech disorders, stomatitis, taste disorders, ulcers, etc.
Throat	Angioedema, dryness, dysphagia, esophagitis, pharyngitis, ulcers, etc.
External throat	Goitre, hyperthyroidism, hypothyroidism, lymphadenopathy, parotiditis, parotitis, torticollis, etc.
Stomach	Anorexia, dyspepsia, gastritis, gastroenteritis, hemorrhage, hiccough, nausea, polydipsia, reflux, ulcers, vomiting, etc.
Abdomen	Ascites, appendicitis, cholelithiasis, colitis, gastroenteritis, hemorrhage, hepatic insufficiency, hepatitis, hepatomegaly, inflammatory bowel disease, intestinal obstruction, pancreatitis, peritonitis, splenomegaly, tumors, etc.
Rectum	Constipation, diarrhea, hemorrhage, hemorrhoids, mucositis, tenesmus, etc.
Bladder	Hemorrhage, infection urinary tract, urinary disorders, etc.
Kidneys	Calculi, glomerulonephritis, pyelonephritis, renal insufficiency, tubular

Scientific Publications

	disorders, urinary disorders, etc.
Urine	Acetonuria, albuminuria, glycosuria, hematuria, oliguria, polyuria, proteinuria, pyuria, sediment, etc.
Genitalia male	Atrophy testes, desire sexual disorders, function sexual disorders (ejaculation; erection; fertility; orgasm), inflammation, etc.
Genitalia female	Abortion, cancer, desire and function sexual disorders, hormonal dysfunctions, inflammation, disorders of (lactation, menses, ovaries, uterus), tumors, etc.
Larynx and Trachea	Inflammation, laryngismus, edema (glottis, larynxes), etc.
Respiration	Accelerated, arrested, asthma, breathing, bronchitis, distress, dyspnea, insufficiency, impeded, infection, irregular, slow, sounds, wheezing, etc.
Chest	Acute myocardial infarction, angina, arrhythmias, heart failure, effusion pleural, inflammation (alveolitis, endocarditis, pneumonitis, pericarditis, pleuritis), pulmonary (edema, embolism, fibrosis), etc.
Extremities	Ataxia, gout, incoordination, inflammation (arthritis, myositis, neuritis, flebitis, tendinitis), myopathy, neuropathy, osteoporosis, paralysis, stiffness, weakness, etc.
Generalities	Anaphylaxis, anemia, coma, convulsions, demyelinating disorders, diabetes, encephalopathy, hypertension, hyperthermia, lymphadenopathy, neuropathy, Stevens-Johnson's syndrome, thromboembolism, etc.

This research project is entitled “*New Homeopathic Medicines: use of modern drugs according to the principle of similitude*”, and it’s distributed among three volumes: (1) *Scientific Basis of the Principle of Similitude in Modern Pharmacology*; (2) *Homeopathic Materia Medica of Modern Drugs*; and (3) *Homeopathic Repertory of Modern Drugs*.

Aiming at divulgating this project among homeopaths worldwide as well as to allow for its improvement, the full materials will be posted online, initially in English and Portuguese at www.newhomeopathicmedicines.com [23].

Thus concluding a study initiated in 1998 [4,5], all studies on the subject will be grouped in the project materials in the hope of widening the scientific basis of homeopathy and the homeopathic treatment of modern diseases.

References

1. Hahnemann S. Essay on a new principle for ascertaining the curative power of drugs, with a few glances at those hitherto employed. In: Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).
2. Hahnemann S. Organon of homeopathic medicine. Third American edition. English version of the fifth German edition. New York: William Radde; 1849.
3. Hahnemann S. Organon of medicine. 6th edition. (Translated by William Boericke). New Delhi: B Jain Publishers; 1991.

4. Teixeira MZ. Semelhante cura semelhante: o princípio de cura homeopático fundamentado pela racionalidade médica e científica [Similar cures similar: the homeopathic cure principle based by the medical and scientific rationality]. São Paulo: Editorial Petrus; 1998.
5. Teixeira MZ. Similitude in modern pharmacology. *Homeopathy*. 1999; 88:112-120.
6. Teixeira MZ. Evidence of the principle of similitude in modern fatal iatrogenic events. *Homeopathy*. 2006; 95:229-236.
7. Teixeira MZ. NSAIDs, Myocardial infarction, rebound effect and similitude. *Homeopathy*. 2007; 96:67-68.
8. Teixeira MZ. Bronchodilators, fatal asthma, rebound effect and similitude. *Homeopathy*. 2007; 96:135-137.
9. Teixeira MZ. Antidepressants, suicidality and rebound effect: evidence of similitude? *Homeopathy*. 2009; 98:114-121.
10. Teixeira MZ. Statins withdrawal, vascular complications, rebound effect and similitude. *Homeopathy*. 2010; 99:255-262.
11. Teixeira MZ. Rebound acid hypersecretion after withdrawal of gastric acid suppressing drugs: new evidence of similitude. *Homeopathy*. 2011; 100:148-156.
12. Teixeira MZ. Homeopathic use of modern medicines: utilisation of the curative rebound effect. *Med Hypotheses*. 2003; 60:276-283.
13. Teixeira MZ. 'Paradoxical strategy for treating chronic diseases': a therapeutic model used in homeopathy for more than two centuries. *Homeopathy*. 2005; 94:265-266.
14. Teixeira MZ. New homeopathic medicines: use of modern drugs according to the principle of similitude. *Homeopathy* 2011, in press (DOI information: 10.1016/j.homp.2011.01.002).
15. Dudgeon RE. Lectures on the theory and practice of homoeopathy. New Delhi: B Jain Publishers; 1982 (Reprint edition). Lectures VII e XII.
16. Hughes R. A manual of pharmacodynamics. 6th Edn. New Delhi: B Jain Publishers; 1980 (Second reprint edition). Lecture II.
17. World Health Organization (WHO). The Uppsala Monitoring Centre. The importance of pharmacovigilance. Safety monitoring of medicinal products; 2002.
18. United States. Code of Federal Regulations. 21 CFR. Food and drugs. 312 Investigational new drug application. Washington; 2003. Available at: <http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/cfrsearch.cfm?cfrpart=312>.
19. Marodin G, Goldim JR. Confusions and ambiguities in the classification of adverse events in the clinical research. *Rev Esc Enferm USP*. 2009; 43: 690-696. Available at: http://www.scielo.br/pdf/reeusp/v43n3/en_a27v43n3.pdf.
20. The United States Pharmacopeial Convention. The United States Pharmacopeia Dispensing Information. Easton: Mack Printing Co; 2004.
21. World Health Organization (WHO). Council for International Organizations of Medical Sciences. Guidelines for preparing core clinical safety information on drug from CIOMS Working Group III. Geneva; 1995. Available at: <https://apps.who.int/dsa/cat98/zcioms8.htm>.

Scientific Publications

22. World Health Organization (WHO). The Uppsala Monitoring Centre. Safety monitoring of medicinal products. Guidelines for setting up and running a Pharmacovigilance Centre; 2000. Available at: <http://apps.who.int/medicinedocs/en/d/Jh2934e/>.
23. Teixeira MZ. New homeopathic medicines: use of modern drugs according to the principle of similtude. São Paulo: Marcus Zulian Teixeira; 2010. 3v. Available at: www.newhomeopathicmedicines.com.

‘New Homeopathic Medicines’ database: A project to employ conventional drugs according to the homeopathic method of treatment⁶

Abstract

Samuel Hahnemann systematized the homeopathy and the effects of the drugs on the state of human health describing a primary action of the drug followed by a secondary and opposite action of the organism. Seeking to employ such secondary action or vital reaction of the organism as a therapeutic method, he formulated the principle of similitude, namely the administration to sick individuals of the drugs that cause similar symptoms in healthy individuals. In modern pharmacology, this secondary action is known as rebound effect or paradoxical reaction of the organism. Besides causing severe and fatal iatrogenic events when appearing after the discontinuation of palliative modern drugs, the rebound effect might waken a healing reaction if the very same drugs involved are employed according to the principle of similitude. Using as database The United States Pharmacopeia Dispensing Information (USP DI) a homeopathic materia medica and repertory with 1251 modern drugs was compiled. A third volume presents the scientific basis of the principle of similitude in accordance with the study of the rebound effect. The complete database composed of three eBooks can be freely accessed at <http://www.newhomeopathicmedicines.com>, allowing anyone to put this proposal into practice immediately. In this way, the therapeutic scope of homeopathy could be broadened through the addition of hundreds of new medicines that could be employed for various diseases and various modern clinical syndromes. Further validation could be achieved by multidisciplinary collaboration.

Introduction

The homeopathic method of treatment is based on four notions: therapeutic similitude; investigation of the effects of drugs on healthy individuals (so-called “provings” or homeopathic pathogenetic trials - HPT); use of highly diluted in serial steps and shaken medicines (so-called “potencies” or high dilutions); and prescription of individually adjusted medication [1-4]. Although in his time Hahnemann and later on other practitioners gave paramount importance to the use of high dilutions notably to control the potential aggravation of symptoms that might occur before clinical improvement, the first two notions described above are the true pillars of the homeopathic scientific model, whereas

⁶ Teixeira MZ. ‘New Homeopathic Medicines’ database: A project to employ conventional drugs according to the homeopathic method of treatment. *European Journal of Integrative Medicine*. 2013; 5(3): 270-278. Available at: <https://doi.org/10.1016/j.eujim.2013.01.001>

the individual adjustment of prescriptions is an essential step to induce the appropriate curative responses.

Therapeutic similitude means to stimulate the body to react to on-going disorders by prescribing to sick individuals the medicines that cause the very same symptoms on healthy volunteers (*similia similibus curentur*, like cures like). It is based on the fact that the effect of any drug (primary or direct action) is followed by the opposite reaction of the organism (secondary or indirect action). Hahnemann was the first to take advantage of the secondary action to induce the cure of diseases [5].

In modern terms, the secondary action corresponds to a homeostatic reaction. Also the more controversial principle of therapeutic similitude has a modern pharmacological equivalent in the rebound effect of drugs (paradoxical reaction of the organism). Thus, the centuries-old gap between homeopathy and conventional medicine might be simply bridged by the assimilation of the ‘primary action’ to the ‘therapeutic, adverse and side effects of drugs’, and the ‘secondary action’ to the ‘rebound effect’ commonly observed after discontinuance of drugs whose effects are the polar opposites of the symptoms and signs exhibited by patients (palliative, enantiopathic or antipathic drugs) [6-16].

Just as the traditional secondary action of homeopathic medicines, the rebound effect of modern conventional drugs might be used for therapeutic purposes, namely to induce favourable homeostatic responses. Since the main premise underlying homeopathic treatment is the prescription of medicines that cause symptoms similar to the ones of the disease, any kind of medication, either natural or synthetic, insubstantial or infinitesimal doses might be used. Consequently, conventional drugs might also be employed according to the principle of therapeutic similitude, whenever their primary (therapeutic, adverse and side) effects are similar to the signs and symptoms exhibited by patients [17-21].

The aim of the present article is to describe the content and operation of *New Homeopathic Medicines* (NHM) database, where modern conventional drugs are rationally incorporated into the traditional homeopathic theoretical and practical model. A large repository of data on the scientific basis of homeopathy is made available to practitioners and researchers, together with a method for prescribing hundreds of modern conventional drugs according to the principle of therapeutic similitude.

Methods

The NHM database is hosted by a bilingual (English and Portuguese) website and is divided into three separate sections that together allow the use of the method for administering modern conventional drugs according to the principle of therapeutic similitude. Section 1, “The scientific basis of the principle of similitude according to modern pharmacology” discusses the evidence that support the assimilation of the adverse events of conventional drugs to homeopathic pathogenetic effects (i.e., the effects caused

by drugs on healthy individuals). The scientific evidence supporting the principle of therapeutic similitude from Hahnemann's to our times was gathered from classic homeopathic sources and hundreds of scientific articles on the 'rebound effect' published in peer-reviewed journals. Section 2, "Homeopathic materia medica of modern drugs" (HMMMD), and section 3, "Homeopathic repertory of modern drugs" (HRMD) list the primary (therapeutic, adverse and side) effects of 1,251 drugs as described in The United States Pharmacopeia Dispensing Information (USP DI, 2004) [22] organized according to the traditional format of works on homeopathic materia medica and repertories.

In order to compile the HMMMD, the first step in the analysis of USP DI monographs was to list the general data of drugs: pharmacological name, commercial name, category (drug classes), indications in conventional medicine, and adverse/side effects (classified as "more frequent", "less frequent" and "rare", or resulting from overdose). In the second step, the primary (pathogenetic/therapeutic, adverse and side) effects of each drug were systematized according to the pattern of the traditional works on homeopathic materia medica and allocated to the corresponding chapters: Mind; Vertigo; Head; Eye; Vision; Ear; Hearing; Nose; Face; Mouth; Teeth; Throat; External Throat; Stomach; Abdomen; Rectum; Stool; Bladder; Kidneys; Prostate Gland; Urethra; Urine; Genitalia Male; Genitalia Female; Larynx and Trachea; Language, Conversation and Voice; Respiration; Cough; Expectoration; Chest; Back; Extremities; Nails; Sleep; Dreams; Chill; Fever; Perspiration; Skin and Generalities. A new chapter on Diagnostic Tests has been added.

According to the homeopathic tradition and also complying with the standard classification of adverse events [23,24], the 'frequency of incidence' of primary/ pathogenetic (therapeutic, adverse and side) effects was scored. Such scores are represented by different styles of fonts: 'very frequent' (therapeutic effects)/ 5 points/ ***bold italic font***; 'more frequent' ($\geq 4\%$)/ 4 points/ **bold font**; 'less frequent' ($\geq 1\%$ and $< 4\%$)/ 3 points/ *italic underlined font*; 'rare' ($< 1\%$)/ 2 points/ *italic font*; 'overdose'/ 1 point/ normal font. Syndromes (i.e., modern clinical diagnoses) are represented as such, whereas their composing symptoms were distributed among the corresponding chapters of the HRMD.

Then all the syndromes and pathogenetic symptoms described in the HMMMD were redistributed in the HMRD according to the traditional model of homeopathic repertories. Therefore the very same order of chapters in homeopathic repertories was reproduced in the HMRD, and all the drugs which cause the same effect (symptom) are grouped together under 'rubrics' and 'sub-rubrics'. The drugs are mentioned by the 'abbreviations' of their names and different fonts (see above) indicate their scores of relative 'frequency of incidence'. In order to facilitate the search of the most accurate rubrics, 'cross-references' point to similar pathogenetic manifestation.

Results

The NHM provides data that lend scientific support to the principle of similitude in modern pharmacology, and a complete protocol to employ conventional drugs according to the homeopathic model. It is divided in three main sections (see below), prefaced by a general ‘Presentation’ of the overall project. Additional sections include a continuously updated list of the potencies or dynamized preparations of conventional drugs available (‘Dynamized Medicines’) and ‘Scientific Evidence’, where data on pharmacological and clinical research published in peer-reviewed journals will be added on a regular basis.

Scientific Basis of the Principle of Similitude in Modern Pharmacology

This section introduces the principle of therapeutic similitude and the homeopathic approach to experimental pharmacology based on classic homeopathic sources. In addition, it subjects the validity of our core assumptions to critical analysis according to the criteria of modern conventional pharmacology, i.e. whether the adverse events of conventional drugs might actually be assimilated to homeopathic pathogenetic effects.

A review of the peer-reviewed literature performed over a 15 year period [6-15] produced sufficient evidence to conclude that, indeed, the primary action of homeopathic medicines does correspond to the therapeutic, adverse, and side effects of conventional drugs. However, their secondary action (vital reaction) corresponds to the rebound effect of the latter (paradoxical reaction of the organism) that appears after the discontinuation or modification of doses (withdrawal syndrome) of all classes of drugs whose action is contrary to the signs and symptoms of disease. Just to mention a few examples, the drugs classically used due to their primary action in the treatment of angina pectoris might induce paradoxical increase of the frequency and intensity of chest-pain after discontinuation or irregular use [25]. The same applies to antihypertensive drugs [26], antiplatelet drugs [27], cholesterol-lowering medications [28], several classes of psychiatric drugs [29-31], analgesic medications [32], diuretics [33], acid-suppressing drugs [34], bronchodilators [35], antiresorptive drugs [36], and so forth.

The rebound effect appears in a very small number of individuals due to its idiosyncratic nature, however, the scientific literature reports on the occurrence of ‘severe and fatal’ iatrogenic events that are caused by the paradoxical reaction of the organism following the discontinuance of many classes of modern drugs [8-15]. However, it is precisely such strong intensity associated with the length of time (up to one month) that allows for the rebound effect to be employed for therapeutic purposes. On the other hand, its idiosyncratic nature justifies the need for individualized medicine so that the homeopathic curative response is awakened.

The section “Scientific basis of the principle of similitude in modern pharmacology” further describes several instances of ‘involuntary homeopathic cures’ effected through the use of conventional drugs. These drugs, reported in the scientific literature, include anticonvulsants, which cause ‘emotional lability’ as an adverse event, used as a mood stabilizer [37]; contraceptive drugs (both cyclic and extended/continuous regimens) used as

inducers of rebound ovulation and consequent pregnancy [38]; central nervous system stimulants have had a beneficial effect on attention deficit hyperactivity disorder (ADHD) [39]; stimulants of gonadotropin releasing hormone in the treatment of testosterone-dependent prostate tumors [40]; and immunosuppressant agents have been used as stimulants of the immune system [41], among others.

In short, this section describes the results of our original research into the rebound effect of modern drugs based on peer-reviewed literature that clusters and analyses hundreds of scientific studies on this subject. To facilitate the retrieval of data, they were subsumed under the following headings: ‘Similitude in Homeopathy’, ‘Similitude in Pharmacology’, ‘Scientific Publications’ and ‘Bibliography’.

Homeopathic Materia Medica of Modern Drugs (HMMMD)

HPT depict countless pictures of artificial states of diseases that allow the application of the principle of therapeutic similarity in clinical practice. The criteria of ‘predictability’, ‘frequency’ and ‘causality’ of adverse effects used in clinical pharmacological studies (Phase I to IV studies) and described in the monographs included in USP DI show that such effects also correspond to pathogenetic (new) symptoms of drugs which might be used for therapeutic purposes according to the principle of similitude [20,24]. To make these countless data operative for clinical application, systematisation was necessary; for this purpose, we chose the traditional formats used in homeopathy, namely materia medica and repertory.

In the resulting Homeopathic Materia Medica of Modern Drugs (HMMMD), all the primary/ pathogenetic (therapeutic, adverse and side effects) effects of each of the 1,251 drugs were distributed among chapters following the order described in the Methods section and scored for their relative frequency of incidence. To facilitate the retrieval of information, the investigated drugs are listed in alphabetical order.

To exemplify the use of the HMMMD, we describe here the anticonvulsant agent valproic acid (Depakote[®]) (Table 1). This drug causes amnesia, emotional lability, dizziness, alopecia, headache, amblyopia, pharyngitis, anorexia, dyspepsia, cramps, diarrhea, menstrual alterations, bronchitis, ataxia, trembling of extremities, somnolence, abnormal dreams, fever, asthenia, weight loss, peripheral edema, hypertonia, hypotension, myalgia, among other effects; however, according to the principle of therapeutic similarity, when used in high dilutions, it might bring relief or cure those very same conditions. However, it is worth mentioning that the effectiveness of homeopathic treatment depends on the proper ‘individualisation’ of the symptomatic picture of each patient (characteristic symptomatic totality). That is, on homeopathic grounds, one may not expect to help with valproic acid any patient with a generic diagnosis of ‘emotional lability’, but only those who have the characteristic symptomatic picture induced by this drug.

Table 1. Example of pathogenetic symptoms (adverse events) in HMMMD

Valproic acid (anticonvulsant) - Depakote®	
Chapters	Primary actions or pathogenetic symptoms
Mind	amnesia (loss of memory; problems with memory); emotional lability (crying; depersonalization; dysphoria; euphoria; mental depression; paranoia; quick to react or overreact emotionally; rapidly changing moods); nervousness ; <u>agitation</u> (anxiety; nervousness; restlessness; irritability; dry mouth; shortness of breath; hyperventilation; trouble sleeping; irregular heartbeats; shaking); <u>anxiety</u> ; <u>behavioral changes</u> ; <u>catatonic reaction</u> (decreased awareness or responsiveness; mimicry of speech or movements; mutism; negativism; peculiar postures or movements, mannerisms or grimacing; severe sleepiness); <u>confusion</u> ; <u>depression</u> (discouragement; feeling sad or empty; irritability; lack of appetite; loss of interest or pleasure; tiredness; trouble concentrating; trouble sleeping); <u>dysarthria</u> (trouble in speaking; slurred speech; changes in patterns and rhythms of speech); <u>excitement, unusual</u> ; <u>hallucinations</u> (seeing, hearing, or feeling things that are not there); <u>irritability, unusual</u> ; <u>mood or mental changes</u> ; <u>restlessness, unusual</u> ; <u>speech disorder</u> (difficulty in speaking); <u>thinking abnormalities</u> ; <u>lethargy</u>
Vertigo	dizziness ; <u>gait, abnormal</u> (change in walking and balance; clumsiness, or unsteadiness); <u>hypotension, postural</u> (chills; cold sweats; confusion; dizziness, faintness, or light-headedness when getting up from lying or sitting position); <u>vertigo</u> (dizziness or light-headedness; feeling of constant movement of self or surroundings, sensation of spinning)
Head	alopecia (hair loss, thinning of hair); headache
Eye	<u>conjunctivitis</u> (redness, pain, swelling of eye, eyelid, or inner lining of eyelid; burning, dry or itching eyes; discharge; excessive tearing); <u>dryness</u> ; <u>nystagmus</u> (continuous, uncontrolled back-and-forth or rolling eye movements); <u>pain, eye</u>
Vision	amblyopia (blurred vision; change in vision; impaired vision); <u>diplopia</u> (double vision); <u>spots before eyes</u>
Ear	<u>ear disorder</u> ; <u>otitis media</u> (earache, redness or swelling in ear); <u>pain, ear</u>
Nose	<u>epistaxis</u> (bloody nose); <u>rhinitis</u> (stuffy nose; runny nose; sneezing); <u>sinusitis</u> (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing)
Face	<u>edema, peripheral</u> (bloating or swelling of face; rapid weight gain; tingling of hands or feet; unusual weight gain or loss)
Mouth	<u>abscess, periodontal</u> ; <u>dryness</u> ; <u>dysarthria</u> (trouble in speaking; slurred speech; changes in patterns and rhythms of speech); <u>glossitis</u> (redness, swelling, or soreness of tongue); <u>speech disorder</u> (difficulty in speaking); <u>stomatitis</u> (swelling or inflammation of the mouth); <u>taste perversion</u> (change in taste; bad, unusual or unpleasant taste)
Throat	pharyngitis (body aches or pain, congestion, cough, dryness or soreness of throat, fever, hoarseness, runny nose, tender, swollen glands in neck, trouble in swallowing, voice changes)
External Throat	<u>rigidity, neck</u> (severe muscle stiffness); <u>pain, neck</u>
Stomach	anorexia (loss of appetite); cramps, mild ; dyspepsia (acid or sour stomach;

Scientific Publications

	belching; heartburn; indigestion; stomach discomfort, upset or pain); indigestion; nausea; vomiting; <u>gastroenteritis</u> (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); <u>hematemesis</u> (vomiting of blood or material that looks like coffee grounds)
Abdomen	cramps, abdominal, mild; <u>flatulence</u> (bloating full feeling; excess air or gas in stomach or intestines; passing gas); <u>gastroenteritis</u> (abdominal or stomach pain; diarrhea; loss of appetite; nausea; weakness); <u>hepatotoxicity</u> (increase in frequency of seizures; loss of appetite; continuing nausea or vomiting; swelling of face; tiredness and weakness; yellow eyes or skin); <u>liver dysfunction; pancreatitis</u> (severe abdominal or stomach cramps; continuing nausea and vomiting); <u>failure, hepatic</u>
Rectum	diarrhea; <u>constipation; incontinence, fecal</u> (loss of bowel control)
Bladder	<u>cystitis</u> (bloody or cloudy urine; difficult, burning, or painful urination; frequent urge to urinate); <u>dysuria</u> (difficult or painful urination; burning while urinating); <u>incontinence, urinary</u> (loss of bladder control)
Genitalia Female	menstrual periods, change in; <u>amenorrhea</u> (absent, missed, or irregular menstrual periods; stopping of menstrual bleeding); <u>dysmenorrhea</u> (pain; cramps; heavy bleeding); <u>hemorrhage, vaginal</u> (heavy, non menstrual vaginal bleeding); <u>metrorrhagia</u> (normal menstrual bleeding occurring earlier, possibly lasting longer than expected); <u>vaginitis</u>
Respiration	<u>bronchitis</u> (cough producing mucus, difficulty breathing, shortness of breath, tightness in chest, wheezing); <u>dyspnea</u> (shortness of breath; difficult or labored breathing; tightness in chest; wheezing); <u>pneumonia</u>
Cough	<u>cough, increased</u>
Chest	<u>bronchitis</u> (cough producing mucus, difficulty breathing, shortness of breath, tightness in chest, wheezing); <u>pain, chest; palpitations</u> (fast, irregular, pounding, or racing heartbeat or pulse); <u>pneumonia; tachycardia</u> (fast, pounding, or irregular heartbeat or pulse)
Extremities	ataxia (clumsiness or unsteadiness); trembling of hands and arms; <u>arthralgia</u> (pain in joints; muscle pain or stiffness; difficulty in moving); <u>arthrosis</u> (degenerative disease of the joint); <u>cramps, leg; edema, peripheral</u> (bloating or swelling of arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); <u>hypertonia</u> (excessive muscle tone; muscle tension or tightness; muscle stiffness); <u>myalgia</u> (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); <u>myasthenia</u> (loss of strength or energy, muscle pain or weakness); <u>twitching</u>
Sleep	somnolence (sleepiness or unusual drowsiness); <u>drowsiness</u>
Dreams	<u>dreams, abnormal</u>
Chill	<u>chills</u>
Fever	<u>fever</u>
Skin	alopecia (hair loss, thinning of hair); rash; <u>dryness; furunculosis</u> (multiple swollen and inflamed skin lesions); <u>petechia</u> (small red or purple spots on skin); <u>pruritus</u>
Generalities	alopecia (hair loss, thinning of hair); asthenia (lack or loss of strength); flu syndrome; infection; weight loss or gain, unusual; <u>arthralgia</u> (pain in joints; muscle pain or stiffness; difficulty in moving); <u>arthrosis</u> (degenerative disease of the joint); <u>catatonic reaction</u> (decreased awareness or responsiveness;

mimicry of speech or movements; mutism; negativism; peculiar postures or movements, mannerisms or grimacing; severe sleepiness); ecchymosis (bruising large, flat, blue or purplish patches in the skin); edema (swelling); edema, peripheral (bloating or swelling of face, arms, hands, lower legs, or feet; rapid weight gain; tingling of hands or feet; unusual weight gain or loss); hyperammonemia (increase in frequency of seizures; loss of appetite; continuing nausea or vomiting; swelling of face; tiredness and weakness; yellow eyes or skin); hypertonia (excessive muscle tone; muscle tension or tightness; muscle stiffness); hypokinesia (absence of or decrease in body movement); hypotension (blurred vision; confusion; dizziness, faintness, or light-headedness when getting up from a lying or sitting position suddenly; sweating; unusual tiredness or weakness); hypotension, postural (chills; cold sweats; confusion; dizziness, faintness, or light-headedness when getting up from lying or sitting position); lupus erythematosus, discoid (coin-shaped lesions on skin; loss of hair); malaise (general feeling of discomfort or illness; unusual tiredness or weakness); myalgia (joint pain; swollen joints; muscle aching or cramping; muscle pains or stiffness; difficulty in moving); myasthenia (loss of strength or energy, muscle pain or weakness); palpitations (fast, irregular, pounding, or racing heartbeat or pulse); pancreatitis (severe abdominal or stomach cramps; continuing nausea and vomiting); paresthesia (burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings); platelet aggregation inhibition (unusual bleeding or bruising); reflexes increased; sinusitis (pain or tenderness around eyes and cheekbones; fever; stuffy or runny nose; headache; cough; shortness of breath or troubled breathing; tightness of chest or wheezing); tachycardia (fast, pounding, or irregular heartbeat or pulse); tardive dyskinesia (lip smacking or puckering; puffing of cheeks; rapid or worm-like movements of tongue; uncontrolled chewing movements; uncontrolled movements of arms and legs); thrombocytopenia (unusual bleeding or bruising); twitching; vasodilation (feeling of warmth or heat; flushing or redness of skin, especially on face and neck; headache; feeling faint, dizzy, or light-headedness; sweating); afibrinogenemia (in an infant, after birth); bruising; clotting abnormalities; congenital anomalies, compatible and incompatible with life (craniofacial defects, cardiovascular malformations and anomalies involving various body systems); encephalopathy, hemostasis (stoppage of bleeding); hyperammonemia (in patients with urea cycle disorders; unexplained lethargy, vomiting, changes in mental status); hemostasis (stoppage of bleeding); jaundice; neural tube defects in the fetus; Reye’s-like syndrome; seizure control, loss of; weakness

Diagnostic Tests	<u>hyperammonemia</u> ; <u>thrombocytopenia</u> ; <u>afibrinogenemia</u> (in an infant, after birth); <u>hemostasis</u>
-------------------------	---

Homeopathic Repertory of Modern Drugs (HRMD)

To facilitate the above mentioned individualisation of the symptomatic picture of patients and drugs, we elaborated a Homeopathic Repertory of Modern Drugs (HRMD), where the pathogenetic symptoms and corresponding drugs are arranged as described in the Methods section. Moreover, it is worth noticing that the signs and symptoms composing syndromes

(clinical diagnoses) that in the HMMMD were kept together, in the HMRD were also separated and distributed among the corresponding chapters, along with the citation of the syndromes or clinical diagnoses.

The arrangement of the chapters follows the same order as in the HMMMD, however, the HMRD lists signs and symptoms together with all the drugs that were reported to have induce them. Such drugs are mentioned by the abbreviations of their names and using the fonts-code of scores described above. The HRMD also maintains the traditional hierarchical structure of homeopathic repertories regarding the description of symptoms and their modalities, which are distributed in ‘rubrics’, ‘sub-rubrics’, etc. All the chapters include ‘cross-references’ between similar pathogenetic manifestations to facilitate the search of the most accurate symptom. Bearing this in mind, a list of all the signs, symptoms and clinical diagnoses is provided under the heading “Repertory” in this section.

The overall structure is illustrated by the example of rubric ‘Violent’, included in the chapter “Mind” of HRMD (Table 2).

Table 2. Example of description of symptoms in HRMD (Chapter Mind)

Violent, vehement (See Irritability)

- **aggressive behavior (aggressiveness; anger; attack; assault; force; hostility) / rage leading to deeds of violence:** Aman-syst., Andro-syst., AntconS-syst., Moc-syst., Mont-syst., PegiA2b-syst., **Risp-syst.**, Vala-syst.
 - **aggression (attack, assault, force):** Don-syst., Fel-syst., Flut-inhloc., Gala-syst., Isot-syst., Leve-syst., Mef-syst., Riv-syst., Tacri-syst., Topi-syst., Vig-syst.
 - **aggressive feelings (attack, assault, force):** Acit-syst.
 - **aggressive reactions:** Cital-syst., Cortic-inhloc., Efav-syst., Rifap-syst.
 - **pediatric patients:** Sertr-syst.
 - **combativeness:** Fludro-syst., Penicil-syst.
 - **confusional, agitated, combative state:** SodO-syst.
 - **hostility (aggressive behavior; suspiciousness or distrust; anger; attack; assault; force):** Acamp-syst., Bupro-syst., Carbam-syst., Cital-syst., Clod-syst., Dapt-syst., Del-syst., EmtT-syst., Leve-syst., Mem-syst., Mica-syst., Mir-syst., Ola-syst., Paro-syst., Sertr-syst., Tacro-top., Thr-syst., Tia-syst., Ven-syst., Vind-syst., Zic-syst.
 - **assaultiveness, with:** AppSupS-syst.
 - **pediatric patients 3 to 12 years of age:** **Gab-syst.**
 - **violent behaviors (use of extreme physical or emotional force):** Fluox-syst., Isot-syst., Nalo-syst.

Acamp-syst.: Acamprosate (Systemic); Acit-syst.: Acitretin (Systemic); Aman-syst.: Amantadine (Systemic); Andro-syst.: Androgens (Systemic); AppSupS-syst.: Appetite Suppressants, Sympathomimetic (Systemic); AntconS-syst.: Anticonvulsants, Succinimide (Systemic); Bupro-syst.: Bupropion (Systemic); Carbam-syst.: Carbamazepine (Systemic); Cital-syst.: Citalopram (Systemic); Clod-syst.: Clodronate (Systemic); Cortic-inhloc.: Corticosteroids (Inhalation-Local); Dapt-syst.: Daptomycin (Systemic); Del-syst.: Delavirdine (Systemic); Don-syst.: Donepezil (Systemic); Efav-syst.: Efavirenz (Systemic);

EmtT-syst.: Emtricitabine and Tenofovir (Systemic); Fel-syst.: Felbamate (Systemic); Flut-inhloc.: Fluticasone (Inhalation-Local); Fludro-syst.: Fludrocortisone (Systemic); Fluox-syst.: Fluoxetine (Systemic); Gab-syst.: Gabapentin (Systemic); Gala-syst.: Galantamine (Systemic); Isotretinoin (Systemic); Leve-syst.: Levetiracetam (Systemic); Mef-syst.: Mefloquine (Systemic); Mem-syst.: Memantine (Systemic); Mica-syst.: Micafungin (Systemic); Mir-syst.: Mirtazapine (Systemic); Moc-syst.: Moclobemide (Systemic); Mont-syst.: Montelukast (Systemic); Nalo-syst.: Naloxone (Systemic); Ola-syst.: Olanzapine (Systemic); Paro-syst.: Paroxetine (Systemic); PegiA2b-syst.: Peginterferon Alfa-2b (Systemic); Penicil-syst.: Penicillins (Systemic); Risp-syst.: Risperidone (Systemic); Riv-syst.: Rivastigmine (Systemic); Rifap-syst.: Rifapentine (Systemic); Sertr-syst.: Sertraline (Systemic); SodO-syst.: Sodium Oxybate (Systemic); Tacri-syst.: Tacrine (Systemic); Tacro-top.: Tacrolimus (Topical); Thr-syst.: Thrombolytic Agents (Systemic); Tia-syst.: Tiagabine (Systemic); Topi-syst.: Topiramate (Systemic); Vala-syst.: Valacyclovir (Systemic); Ven-syst.: Venlafaxine (Systemic); Vig-syst.: Vigabatrin (Systemic); Vind-syst.: Vindesine (Systemic); Zic-syst.: Ziconotide (Systemic).

How to use *New Homeopathic Medicines* database

The NHM database aims at expanding the therapeutic resources of homeopathy by incorporating the knowledge produced by conventional medicine and pharmacology, and reciprocally by enabling conventional doctors to profit from the knowledge produced by homeopathic medicine and pharmacology. Thus, the NHM database might contribute to fulfill the expectations of modern integrative medicine.

Once again, what we propose is that, each and every conventional drug might be used according to the principle of therapeutic similarity provided the practitioners comply with the homeopathic guidelines for drug selection. In this regard, the basic premise is that medicines are never chosen for one single sign or symptom, not even for a generic syndrome (clinical diagnosis), but for the full set of clinical manifestations that characterise each individual case of disease (individualisation). This requirement is crucial for the homeostatic reaction of the organism to be triggered and thus induce effective therapeutic responses.

For this purpose, the data obtained during consultation (mental, physical, general, particular, signs, symptoms, laboratory and imaging data, and so forth) are initially searched in the HRMD. Thus, the drugs that caused them as primary/ pathogenetic (therapeutic, adverse and side) effects are identified. Next, the materia medica of each drug must be checked to establish whether it actually corresponds to the individualised set of signs and symptoms exhibited by a given patient. Once such verification is accomplished, the indicated drug must be prescribed alone and in high dilution. The following illustrative example intends to make this procedure clearer.

A patient displays symptoms of endometriosis. The clinical assessment also identifies the presence of chronic symptoms of depression, migraine, sinusitis, acne and hirsutism on the face. All these pathogenetic data are searched in the HRMD: endometriosis in chapter 'Genitalia Female', depression in 'Mind', migraine in 'Head', and sinusitis, acne, and hirsutism in 'Face'. Since endometriosis is the main complaint, analysis will prioritise it (director symptom), and all the drugs associated with it as primary/ pathogenetic action must be taken into account (Table 3). The remainder of the symptoms and their corresponding drugs are compared against the initial list of drugs through the repertorization of symptoms (Table 4).

Table 3. Endometriosis in HRMD (Chapter Genitalia Female)

Endometrium

- endometriosis; disorder, endometrial; proliferation, endometrial; hyperplasia; endometriotic disease flare (change in vaginal discharge; pain or feeling of pressure in pelvis; vaginal bleeding) (See Enlarged, uterus, endometrium; Uterus): *DrosE-syst.*, *Estro-syst.*, *Estro-vag.*, **Ralo-syst.**, *Tamo-syst.*, *Tore-syst.*

DrosE-syst.: Drospirenone and Estradiol (Systemic); *Estro-syst.*: Estrogens (Systemic); *Estro-vag.*: Estrogens (Vaginal); *Ralo-syst.*: Raloxifene (Systemic); *Tamo-syst.*: Tamoxifen (Systemic); *Tore-syst.*: Toremifene (Systemic).

Table 4. Repertorization of symptoms

Symptoms

- (1) Chapter Genitalia Female - Endometriosis (director symptom)
- (2) Chapter Mind - Depression
- (3) Chapter Head - Migraine
- (4) Chapter Face - Sinusitis
- (5) Chapter Face - Acne
- (6) Chapter Face - Hirsutism

Drugs	Symptoms covered	Total score	Symptoms					
			(1)	(2)	(3)	(4)	(5)	(6)
<i>DrosE-syst.</i>	3/6	10	3	-	3	4	-	-
<i>Estro-syst.</i>	6/6	21	3	4	4	4	3	3
<i>Estro-vag.</i>	1/6	3	3	-	-	-	-	-
<i>Ralo-syst.</i>	4/6	14	4	3	3	4	-	-
<i>Tamo-syst.</i>	2/6	6	3	3	-	-	-	-
<i>Tore-syst.</i>	1/6	3	3	-	-	-	-	-

In this example, only the drug Estrogens (Systemic) corresponds to the full set of the patient's signs and symptoms. Conversely, Drospirenone and Estradiol (Systemic) only

correspond to the components migraine and sinusitis, Raloxifene (Systemic) to depression, migraine and sinusitis, Tamoxifen (Systemic) to depression, and Estrogens (Vaginal) and Toremifene (Systemic) to endometriosis. However, before ruling out any possibility, the HMMMD must be checked to build up a more accurate picture of the individualised set of signs and symptoms exhibited by the patient on the grounds of the full range of pathogenetic effects (mental, physical, general, and particular) of the drugs.

For this early stage of development, a list of conventional drugs already available in high dilution was also included in the database. The actual dilution and interval between doses are to be decided by each practitioner according to his or her experience.

Finally, NHM also includes a section for practitioners to report on their experience with the clinical use of the new homeopathic medicines.

Epistemological and ethical validation of this proposal

What is being proposed with the ‘modern’ allopathic drugs is the same as the homeopathic tradition and experience makes for more than 200 years with a large number of ‘old’ allopathic (and toxic) drugs (*Arsenicum album*, *Atropa belladonna*, *Cannabis sativa*, *Mercurius solubilis*, *Nux vomica*, *Opium*, *Sulphur*, etc.), practice considered ethically correct in homeopathic means. According to the epistemological and historical revisions of the Homeopathic Materia Medica (HMM) performed by Robert Dudgeon [42] and Richard Hughes [43], the majority of pathogenetic symptoms described in traditional HMM are ‘adverse/side effects (or poisoning)’ of old allopathic drugs used in mass doses and sick individuals, in ancient times or at the time of Hahnemann. The trials with infinitesimal doses and in healthy subjects constitute a minority of signs and symptoms of traditional HMM, in spite of this being the ‘ideal protocol’ for the pathogenetic trials. [20]

In work that inaugurates the homeopathy [44], Hahnemann mentions the use of drugs of his time in the homeopathic treatment of numerous diseases and epidemics (uterine colic with *Matricaria chamomilla*; autumnal dysentery with *Arnica montana*; painful indurations of the lymph nodes with *Conium maculatum*; paralytic and spasmodic affections with *Solanum dulcamara*; chronic hemorrhages, mania and seizures with *Hyoscyamus niger*; tremors, fasciculations, cramps and intermittent fevers with *Ignatia amara*; amaurosis, cataracts and opacities of the cornea with *Anemona pratensis*, etc.), applying them according to the principle of similitude (‘adverse/side effects’ mentioned in literature) and substantial doses. In The Lesser Writings [45], Hahnemann describes similar applications in other epidemic diseases (remittent and scarlet fevers, typhus, cholera, etc).

As occurred with many provings described in *Materia Medica Pura* [46], the provings of dozens of new homeopathic medicines included in *The Chronic Diseases* [47] (latest provings described by Hahnemann while residing in Köethen) were constituted by symptomatic manifestations derived from the ‘adverse/side effects’ of substances applied in sick individuals and with various doses (substantial and dynamized).

In addition, some of these modern allopathic drugs (BCG, Chloramphenicol, Cortisone, Haloperidol, Penicillin, etc.) also were tested in healthy individuals and with infinitesimal doses [48], manifesting a great number of signs and symptoms similar to those described in the adverse/side effects of pharmacological textbooks.

In correspondence to the current ethical and legal aspects, is being proposed the ‘off-label’ use of modern drugs, widely used by modern Pharmacology in search of new indications for conventional drugs. Unlike of this conventional off-label use with substantial doses, is being proposed the employment of infinitesimal doses, with minimal risk to users. In addition, explicit conditions for the use of this database (Registration Form - License for Online Use of New Homeopathic Medicines - §11), to which all users must agree to have access, the ‘experimental character’ of this off-label use are also clearly described: “This website makes available study and research projects without publicizing definitive or conclusive results warranting the clinical efficacy or effectiveness of the use of this therapeutic approach”.

In all clinical conditions and, especially, in severe cases, the use of this experimental database must assume the character of complementary or adjuvant therapy, following the same ethical and legal requirements of the employment of traditional homeopathic medicines [49]: until the unequivocal effect of the homeopathic treatment is clear, all conventional therapeutic measures must be maintained, which may be gradually withdrawn since the homeopathic response occurs.

Conclusions

Following the traditional homeopathic standards, the *New Homeopathic Medicines* database provides tools to employ conventional modern drugs according to the principle of therapeutic similitude to lead the rebound effect of the organism to a curative direction through the administration of highly diluted medicines able to induce the very same signs and symptoms in their primary action.

Based on research that allowed grounding therapeutic similitude on modern conventional pharmacology, a “Homeopathic Materia Medica of Modern Drugs” was elaborated, grouping all the primary (therapeutic, adverse and side) effects of 1,251 drugs (USP DI, 2004) according to the traditional format of the homeopathic materia medica, and the data were scored according to their frequency of incidence in Phases I to IV of conventional clinical pharmacological studies.

To facilitate the selection of individualised medicines in accordance with the set of signs, symptoms and clinical diagnoses exhibited by each particular patient, a “Homeopathic Repertory of Modern Drugs” was elaborated, where the primary/ pathogenetic (therapeutic, adverse and side) effects of the investigated conventional drugs are listed together with the

drugs reported to induce them based on the structure of the traditional homeopathic repertories.

The full set of tools supplied by NHM enables any medical practitioner to treat not only the disorders traditionally approached by homeopathy, but also modern signs, symptoms and complex syndromes. This last addition is particularly significant, because many current diseases and syndromes were neither known in the past nor induced by HPT conducted with the traditional homeopathic medicines. Consequently, NHM allows the employment of homeopathy as an adjuvant or complementary treatment in several types of modern clinical diagnoses including severe diseases such as cancer, stroke, neurological, inflammatory, and autoimmune diseases, organ failures, immunodeficiency, hormonal disorders, among many others. It also broadens the scope of action of traditional homeopathy by means of the addition of hundreds of new medicines.

The idiosyncratic features of the primary/ pathogenetic (therapeutic, adverse and side) effects of conventional drugs are not described in the conventional clinical pharmacological reports, therefore, accurate individualisation of treatments may not be performed in the present time. For this reason, in this article is being suggested an initial clinical approach based on the full set of signs, symptoms and clinical diagnoses exhibited by each individual patient to select the most appropriate medication.

The validation of the present proposal requires multidisciplinary collaboration involving physicians to make the prescriptions and report their results (clinical cases), pharmacists to prepare the high dilutions of conventional drugs, and researchers to design experimental protocols. The first stage of validation can occur by reporting clinical cases (case reports and case series) with experimental research protocols in a second time. For this, it becomes essential to the dissemination of the proposal.

References

1. Dantas F, Fisher P, Walach H, et al. A systematic review of the quality of homeopathic pathogenetic trials published from 1945 to 1995. *Homeopathy* 2007; 96:4-16.
2. Fisher P. What is homeopathy? An introduction. *Front Biosci (Elite Ed)* 2012; 4:1669-1682.
3. Teixeira MZ. Scientific evidence of the homeopathic epistemological model. *Int J High Dilution Res* 2011; 10:46-64.
4. Mathie RT, Roniger H, Van Wassenhoven M, et al. Method for appraising model validity of randomised controlled trials of homeopathic treatment: multi-rater concordance study. *BMC Med Res Methodol* 2012; 12:49.
5. Hahnemann S. *Organon of medicine*. 6th Edn. New Delhi: B Jain Publishers; 1991; paragraphs 63-65.
6. Teixeira MZ. Semelhante cura semelhante: o princípio de cura homeopático fundamentado pela racionalidade médica e científica [Like cures like: the medical and

- scientific foundations of the homeopathic principle of healing]. São Paulo: Editorial Petrus; 1998.
7. Teixeira MZ. Similitude in modern pharmacology. *British Homeopathic Journal* 1999; 88:112-20.
 8. Teixeira MZ. Evidence of the principle of similitude in modern fatal iatrogenic events. *Homeopathy* 2006; 95:229-236.
 9. Teixeira MZ. NSAIDs, Myocardial infarction, rebound effect and similitude. *Homeopathy* 2007; 96:67-68.
 10. Teixeira MZ. Bronchodilators, fatal asthma, rebound effect and similitude. *Homeopathy* 2007; 96:135-137.
 11. Teixeira MZ. Antidepressants, suicidality and rebound effect: evidence of similitude? *Homeopathy* 2009; 98:114-121.
 12. Teixeira MZ. Statins withdrawal, vascular complications, rebound effect and similitude. *Homeopathy* 2010; 99:255-262.
 13. Teixeira MZ. Rebound acid hypersecretion after withdrawal of gastric acid suppressing drugs: new evidence of similitude. *Homeopathy* 2011; 100:148-156.
 14. Teixeira MZ. Rebound effect of drugs: fatal risk of the conventional treatment and pharmacological basis of the homeopathic treatment. *Int J High Dilution Res* 2012; 11:69-106.
 15. Teixeira MZ. Antiresorptive drugs (bisphosphonates), atypical fractures and rebound effect: new evidence of similitude. *Homeopathy* 2012; 101: 231-242.
 16. Reidenberg MM. Drug discontinuation effects are part of the pharmacology of a drug. *J Pharmacol Exp Ther* 2011; 339:324-328.
 17. Teixeira MZ. Homeopathic use of modern medicines: utilisation of the curative rebound effect. *Med Hypotheses* 2003; 60:276-283.
 18. Yun AJ, Lee PY, Bazar KA. Paradoxical strategy for treating chronic diseases where the therapeutic effect is derived from compensatory response rather than drug effect. *Med Hypotheses* 2005; 64:1050-1059.
 19. Teixeira MZ. 'Paradoxical strategy for treating chronic diseases': a therapeutic model used in homeopathy for more than two centuries. *Homeopathy* 2005; 94:265-266.
 20. Teixeira MZ. New homeopathic medicines: use of modern drugs according to the principle of similitude. *Homeopathy* 2011; 100:244-252.
 21. Teixeira MZ. Homeopathic use of modern drugs: therapeutic application of the organism paradoxical reaction or rebound effect. *Int J High Dilution Res* 2011; 10:338-352.
 22. The United States Pharmacopeial Convention. *The United States Pharmacopeia Dispensing Information*. Easton: Mack Printing Co; 2004.
 23. World Health Organization (WHO). Council for International Organizations of Medical Sciences. Guidelines for preparing core clinical safety information on drug from CIOMS Working Group III. Geneva; 1995. Available at: <https://apps.who.int/dsa/cat98/zcioms8.htm>.
 24. Marodin G, Goldim JR. Confusions and ambiguities in the classification of adverse events in the clinical research. *Rev Esc Enferm USP* 2009; 43:690-696. Available at: http://www.scielo.br/pdf/reeusp/v43n3/en_a27v43n3.pdf.

25. Thadani U, Rodgers T. Side effects of using nitrates to treat angina. *Expert Opin Drug Saf* 2006; 5:667-674.
26. Vongpatanasin W, Kario K, Atlas SA, Victor RG. Central sympatholytic drugs. *J Clin Hypertens (Greenwich)* 2011; 13:658-661.
27. Gerstein NS, Schulman PM, Gerstein WH, Petersen TR, Tawil I. Should more patients continue aspirin therapy perioperatively?: clinical impact of aspirin withdrawal syndrome. *Ann Surg* 2012; 255:811-819.
28. Pineda A, Cubeddu LX. Statin rebound or withdrawal syndrome: does it exist? *Curr Atheroscler Rep* 2011; 13:23-30.
29. Howland RH. Potential adverse effects of discontinuing psychotropic drugs. Part 1: Adrenergic, cholinergic, and histamine drugs. *J Psychosoc Nurs Ment Health Serv* 2010; 48(6):11-14.
30. Howland RH. Potential adverse effects of discontinuing psychotropic drugs: part 2: antidepressant drugs. *J Psychosoc Nurs Ment Health Serv* 2010; 48(7):9-12.
31. Howland RH. Potential adverse effects of discontinuing psychotropic drugs: part 3: antipsychotic, dopaminergic, and mood-stabilizing drugs. *J Psychosoc Nurs Ment Health Serv* 2010; 48(8):11-14.
32. Couch JR. Update on chronic daily headache. *Curr Treat Options Neurol* 2011; 13: 41-55.
33. Asare K. Management of loop diuretic resistance in the intensive care unit. *Am J Health Syst Pharm* 2009; 66:1635-1640.
34. Lerotić I, Baršić N, Stojšavljević S, Duvnjak M. Acid inhibition and the acid rebound effect. *Dig Dis* 2011; 29:482-486.
35. Hancox RJ. Concluding remarks: can we explain the association of beta-agonists with asthma mortality? A hypothesis. *Clin Rev Allergy Immunol* 2006; 31:279-288.
36. Boonen S, Ferrari S, Miller PD, et al. Postmenopausal osteoporosis treatment with antiresorptives: Effects of discontinuation or long-term continuation on bone turnover and fracture risk-a perspective. *J Bone Miner Res* 2012; 27:963-974.
37. Meltzer HY, Bonaccorso S, Bobo WV, Chen Y, Jayathilake K. A 12-month randomized, open-label study of the metabolic effects of olanzapine and risperidone in psychotic patients: influence of valproic acid augmentation. *J Clin Psychiatry* 2011; 72:1602-1610.
38. Barnhart KT, Schreiber CA. Return to fertility following discontinuation of oral contraceptives. *Fertil Steril* 2009; 91:659-663.
39. Rapoport JL, Inoff-Germain G. Responses to methylphenidate in Attention-Deficit/Hyperactivity Disorder and normal children: update 2002. *J Atten Disord* 2002; 6 Suppl 1:S57-60.
40. Denmeade SR, Isaacs JT. Bipolar androgen therapy: the rationale for rapid cycling of supraphysiologic androgen/ablation in men with castration resistant prostate cancer. *Prostate* 2010; 70:1600-1607.
41. Havla JB, Pellkofer HL, Meinel I, Gerdes LA, Hohlfeld R, Kämpfel T. Rebound of disease activity after withdrawal of fingolimod (FTY720) treatment. *Arch Neurol* 2012; 69:262-264.

Scientific Publications

42. Dudgeon RE. Lectures on the theory and practice of homoeopathy. New Delhi: B Jain Publishers; 1982 (Reprint edition). Lectures VII e XII.
43. Hughes R. A manual of pharmacodynamics. 6th Edn. New Delhi: B Jain Publishers; 1980 (Second reprint edition). Lecture II.
44. Hahnemann S. Essay on a new principle for ascertaining the curative power of drugs, with a few glances at those hitherto employed. In: Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).
45. Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).
46. Hahnemann S. Materia Medica Pura. New Delhi: B Jain Publishers; 1994 (Reprint edition). 2v.
47. Hahnemann S. Chronic Diseases. (Translated by Robert E. Dudgeon). New Delhi: B Jain Publishers; 1983. 2v.
48. Julian OA. Materia Medica of New Homeopathic Remedies. London: Beaconsfield Press; 1979.
49. MZ Teixeira, SM Leal, VMFA Ceschin. Homeopathic practice in Intensive Care Units: objective semiology, symptom selection and a series of sepsis cases. Homeopathy 2008; 97:206-213.

Other scientific publications

Title: Estrogênio potencializado no tratamento homeopático da dor pélvica crônica associada à endometriose: Um estudo de 24 semanas, randomizado, duplo-cego e placebo-controlado.

Authors: Marcus Zulian Teixeira, Sérgio Podgaec, Edmund Chada Baracat.

Source: *Revista de Homeopatia (São Paulo)* 2017; 80(Supl 1/2): 88-97.

Abstract: *Objetivo:* Avaliar a eficácia e a segurança do estrogênio potencializado em comparação com o placebo no tratamento homeopático da dor pélvica associada à endometriose (DPAE). *Desenho do estudo:* Ensaio randomizado, duplo-cego e placebo-controlado de 24 semanas de duração, que incluiu 50 mulheres com idade entre 18-45 anos de idade, diagnóstico de endometriose infiltrativa profunda com base em ressonância magnética nuclear ou ultrassonografia transvaginal após preparo intestinal e escore ≥ 5 na escala analógica visual (EAV: intervalo de 0 a 10 pontos) para DPAE. Estrogênio potencializado (12cH, 18cH e 24cH) ou placebo foi administrado 2 vezes ao dia por via oral. A medida de desfecho primário foi a mudança na severidade da DPAE com base no escore global e parcial (EAV) entre as semanas 0-24, determinado pela diferença entre a pontuação média de 5 modalidades de dor pélvica crônica (dismenorreia, dispareunia de profundidade, dor pélvica acíclica, dor intestinal cíclica e/ou dor urinária cíclica). Os desfechos secundários foram: diferença nos escores médios para qualidade de vida (SF-36), sintomas de depressão (Inventário de Depressão de Beck, IDB) e sintomas de ansiedade (Inventário de Ansiedade de Beck, IAB). *Resultados:* O escore global da DPAE (EAV: intervalo de 0 a 50 pontos) diminuiu 12,82 pontos ($p < 0,001$) no grupo tratado com o estrogênio potencializado (dinamizado) entre as semanas 0-24. O grupo que usou o estrogênio potencializado também exibiu redução nos escores parciais (EAV: intervalo de 0 a 10 pontos) de 3 modalidades de DPAE: dismenorreia (3,28; $p < 0,001$), dor pélvica acíclica (2,71; $p = 0,009$) e dor intestinal cíclica (3,40; $p < 0,001$). O grupo placebo não apresentou quaisquer alterações significativas nos escores global ou parciais da DPAE. Além disso, o grupo com estrogênio potencializado mostrou melhora significativa em 3 dos 8 domínios do SF-36 (dor corporal, vitalidade e saúde mental) e nos sintomas de depressão (IDB). O grupo placebo não mostrou qualquer melhora significativa nesses desfechos secundários. Esses resultados demonstraram a superioridade do estrogênio potencializado em comparação ao placebo. Alguns efeitos adversos foram associados com o estrogênio dinamizado. *Conclusões:* Estrogênio potencializado (12cH, 18cH e 24cH) na dose de 3 gotas 2 vezes ao dia durante 24 semanas foi significativamente mais eficaz que o placebo na redução da dor pélvica associada à endometriose. *ClinicalTrials.gov Identificador:* [NCT02427386](https://clinicaltrials.gov/ct2/show/study/NCT02427386).

Available at: [ResearchGate](https://www.researchgate.net/publication/318111111)

Title: Potentized estrogen in homeopathic treatment of endometriosis-associated pelvic pain: A 24-week, randomized, double-blind, placebo-controlled study.

Authors: Marcus Zulian Teixeira, Sérgio Podgaec, Edmund Chada Baracat.

Source: *Revista de Homeopatia (São Paulo. Online)* 2017; 80(3/4): 134-135.

Abstract: *Objective:* To evaluate the efficacy and safety of potentized estrogen compared to placebo in homeopathic treatment of endometriosis-associated pelvic pain (EAPP). *Study design:* The present was a 24-week, randomized, double-blind, placebo-controlled trial that included 50 women aged 18-45 years old with diagnosis of deeply infiltrating endometriosis based on magnetic resonance imaging or transvaginal ultrasound after bowel preparation, and score ≥ 5 on a visual analogue scale (VAS: range 0 to 10) for endometriosis-associated pelvic pain. Potentized estrogen (12cH, 18cH and 24cH) or placebo was administered twice daily per oral route. The primary outcome measure was change in the severity of EAPP global and partial scores (VAS) from baseline to week 24, determined as the difference in the mean score of five modalities of chronic pelvic pain (dysmenorrhea, deep dyspareunia, non-cyclic pelvic pain, cyclic bowel pain and/or cyclic urinary pain). The secondary outcome measures were mean score difference for quality of life assessed with SF-36 Health Survey Questionnaire, depression symptoms on Beck Depression Inventory (BDI), and anxiety symptoms on Beck Anxiety Inventory (BAI). *Results:* The EAPP global score (VAS: range 0 to 50) decreased by 12.82 ($P < 0.001$) in the group treated with potentized estrogen from baseline to week 24. Group that used potentized estrogen also exhibited partial score (VAS: range 0 to 10) reduction in three EAPP modalities: dysmenorrhea (3.28; $P < 0.001$), non-cyclic pelvic pain (2.71; $P = 0.009$), and cyclic bowel pain (3.40; $P < 0.001$). Placebo group did not show any significant changes in EAPP global or partial scores. In addition, the potentized estrogen group showed significant improvement in three of eight SF-36 domains (bodily pain, vitality and mental health) and depression symptoms (BDI). Placebo group showed no significant improvement in this regard. These results demonstrate superiority of potentized estrogen over placebo. Few adverse events were associated with potentized estrogen. *Conclusions:* Potentized estrogen (12cH, 18cH and 24cH) at a dose of 3 drops twice daily for 24 weeks was significantly more effective than placebo for reducing endometriosis-associated pelvic pain. *ClinicalTrials.gov Identifier:* [NCT02427386](https://clinicaltrials.gov/ct2/show/study/NCT02427386).

Available at: <http://revista.aph.org.br/index.php/aph/article/view/414/488>

Title: News - Potentised Oestrogen in Homeopathic Treatment of Endometriosis-Associated Pelvic Pain: A 24-week, Randomised, Double-Blind, Placebo-Controlled Study.

Authors: Marcus Zulian Teixeira, Sérgio Podgaec, Edmund Chada Baracat.

Source: *Homoeopathic Links* 2017; 30(3): 154.

Abstract: *Objective:* To evaluate the efficacy and safety of potentized estrogen compared to placebo in homeopathic treatment of endometriosis-associated pelvic pain (EAPP). *Study design:* The present was a 24-week, randomized, double-blind, placebo-controlled trial that

included 50 women aged 18-45 years old with diagnosis of deeply infiltrating endometriosis based on magnetic resonance imaging or transvaginal ultrasound after bowel preparation, and score ≥ 5 on a visual analogue scale (VAS: range 0 to 10) for endometriosis-associated pelvic pain. Potentized estrogen (12cH, 18cH and 24cH) or placebo was administered twice daily per oral route. The primary outcome measure was change in the severity of EAPP global and partial scores (VAS) from baseline to week 24, determined as the difference in the mean score of five modalities of chronic pelvic pain (dysmenorrhea, deep dyspareunia, non-cyclic pelvic pain, cyclic bowel pain and/or cyclic urinary pain). The secondary outcome measures were mean score difference for quality of life assessed with SF-36 Health Survey Questionnaire, depression symptoms on Beck Depression Inventory (BDI), and anxiety symptoms on Beck Anxiety Inventory (BAI). *Results:* The EAPP global score (VAS: range 0 to 50) decreased by 12.82 ($P < 0.001$) in the group treated with potentized estrogen from baseline to week 24. Group that used potentized estrogen also exhibited partial score (VAS: range 0 to 10) reduction in three EAPP modalities: dysmenorrhea (3.28; $P < 0.001$), non-cyclic pelvic pain (2.71; $P = 0.009$), and cyclic bowel pain (3.40; $P < 0.001$). Placebo group did not show any significant changes in EAPP global or partial scores. In addition, the potentized estrogen group showed significant improvement in three of eight SF-36 domains (bodily pain, vitality and mental health) and depression symptoms (BDI). Placebo group showed no significant improvement in this regard. These results demonstrate superiority of potentized estrogen over placebo. Few adverse events were associated with potentized estrogen. *Conclusions:* Potentized estrogen (12cH, 18cH and 24cH) at a dose of 3 drops twice daily for 24 weeks was significantly more effective than placebo for reducing endometriosis-associated pelvic pain.

Available at: <https://www.thieme-connect.de/products/ejournals/abstract/10.1055/s-0037-1605358>

Title: Estrogênio potencializado no tratamento homeopático da dor pélvica crônica associada à endometriose: Um estudo de 24 semanas, randomizado, duplo-cego e placebo-controlado.

Authors: Marcus Zulian Teixeira, Sérgio Podgaec, Edmund Chada Baracat.

Source: *Revista de Homeopatia (São Paulo. Online)* 2017; 80(1/2): 148–163.

Abstract: *Objetivo:* Avaliar a eficácia e a segurança do estrogênio potencializado em comparação com o placebo no tratamento homeopático da dor pélvica associada à endometriose (DPAE). *Desenho do estudo:* Ensaio randomizado, duplo-cego e placebo-controlado de 24 semanas de duração, que incluiu 50 mulheres com idade entre 18-45 anos de idade, diagnóstico de endometriose infiltrativa profunda com base em ressonância magnética nuclear ou ultrassonografia transvaginal após preparo intestinal e escore ≥ 5 na escala analógica visual (EAV: intervalo de 0 a 10 pontos) para DPAE. Estrogênio potencializado (12cH, 18cH e 24cH) ou placebo foi administrado 2 vezes ao dia por via oral. A medida de desfecho primário foi a mudança na severidade da DPAE com base no escore global e parcial (EAV) entre as semanas 0-24, determinado pela diferença entre a

pontuação média de 5 modalidades de dor pélvica crônica (dismenorreia, dispareunia de profundidade, dor pélvica acíclica, dor intestinal cíclica e/ou dor urinária cíclica). Os desfechos secundários foram: diferença nos escores médios para qualidade de vida (SF-36), sintomas de depressão (Inventário de Depressão de Beck, IDB) e sintomas de ansiedade (Inventário de Ansiedade de Beck, IAB). **Resultados:** O escore global da DPAE (EAV: intervalo de 0 a 50 pontos) diminuiu 12,82 pontos ($p < 0,001$) no grupo tratado com o estrogênio potencializado (dinamizado) entre as semanas 0-24. O grupo que usou o estrogênio potencializado também exibiu redução nos escores parciais (EAV: intervalo de 0 a 10 pontos) de 3 modalidades de DPAE: dismenorreia (3,28; $p < 0,001$), dor pélvica acíclica (2,71; $p = 0,009$) e dor intestinal cíclica (3,40; $p < 0,001$). O grupo placebo não apresentou quaisquer alterações significativas nos escores global ou parciais da DPAE. Além disso, o grupo com estrogênio potencializado mostrou melhora significativa em 3 dos 8 domínios do SF-36 (dor corporal, vitalidade e saúde mental) e nos sintomas de depressão (IDB). O grupo placebo não mostrou qualquer melhora significativa nesses desfechos secundários. Esses resultados demonstraram a superioridade do estrogênio potencializado em comparação ao placebo. Alguns efeitos adversos foram associados com o estrogênio dinamizado. **Conclusões:** Estrogênio potencializado (12cH, 18cH e 24cH) na dose de 3 gotas 2 vezes ao dia durante 24 semanas foi significativamente mais eficaz que o placebo na redução da dor pélvica associada à endometriose. *ClinicalTrials.gov* Identificador: [NCT02427386](https://clinicaltrials.gov/ct2/show/study/NCT02427386).

Available at: <http://revista.aph.org.br/index.php/aph/article/view/390>

Title: Therapeutic use of the rebound effect of modern drugs: “New homeopathic medicines”.

Autor: Marcus Zulian Teixeira

Source: *Revista da Associação Médica Brasileira* 2017; 63(2): 100-108.

Abstract: The homeopathic treatment is based on the principle of therapeutic similitude, employing medicines that cause certain disorders to treat similar manifestations, stimulating a reaction of the organism against its own ailments. The occurrence of this secondary reaction of the organism, opposite in nature to the primary action of the medicines, is evidenced in the study of the rebound (paradoxical) effect of several classes of modern drugs. In this work, in addition to substantiate the principle of similitude before the experimental and clinical pharmacology, we suggest a proposal to employ hundreds of conventional drugs according to homeopathic method, applying the therapeutic similitude between the adverse events of medicines and the clinical manifestations of patients. Describing existing lines of research and a specific method for the therapeutic use of the rebound effect of modern drugs (<http://www.newhomeopathicmedicines.com>), we hope to minimize prejudices related to the homeopathy and contribute to a broadening of the healing art.

Available at: <https://doi.org/10.1590/1806-9282.63.02.100>

Title: Reply to “Letter to the Editor” by Moran et al. “Comment on ‘Potentized estrogen in homeopathic treatment of endometriosis associated pelvic pain: A 24-week, randomized, double-blind, placebo-controlled study’”.

Authors: Marcus Zulian Teixeira, Sérgio Podgaec, Edmund Chada Baracat.

Source: *European Journal of Obstetrics & Gynecology and Reproductive Biology* 2017; 214: 195-7.

Available at: <https://doi.org/10.1016/j.ejogrb.2017.04.047>

Title: Potentized estrogen in homeopathic treatment of endometriosis-associated pelvic pain: a 24-week, randomized, double-blind, placebo-controlled study.

Authors: Marcus Zulian Teixeira, Sérgio Podgaec, Edmund Chada Baracat.

Source: *European Journal of Obstetrics & Gynecology and Reproductive Biology* 2017; 211: 48-55.

Abstract: *Objective:* To evaluate the efficacy and safety of potentized estrogen compared to placebo in homeopathic treatment of endometriosis-associated pelvic pain (EAPP). *Study design:* The present was a 24-week, randomized, double-blind, placebo-controlled trial that included 50 women aged 18-45 years old with diagnosis of deeply infiltrating endometriosis based on magnetic resonance imaging or transvaginal ultrasound after bowel preparation, and score ≥ 5 on a visual analogue scale (VAS: range 0 to 10) for endometriosis-associated pelvic pain. Potentized estrogen (12cH, 18cH and 24cH) or placebo was administered twice daily per oral route. The primary outcome measure was change in the severity of EAPP global and partial scores (VAS) from baseline to week 24, determined as the difference in the mean score of five modalities of chronic pelvic pain (dysmenorrhea, deep dyspareunia, non-cyclic pelvic pain, cyclic bowel pain and/or cyclic urinary pain). The secondary outcome measures were mean score difference for quality of life assessed with SF-36 Health Survey Questionnaire, depression symptoms on Beck Depression Inventory (BDI), and anxiety symptoms on Beck Anxiety Inventory (BAI). *Results:* The EAPP global score (VAS: range 0 to 50) decreased by 12.82 ($P < 0.001$) in the group treated with potentized estrogen from baseline to week 24. Group that used potentized estrogen also exhibited partial score (VAS: range 0 to 10) reduction in three EAPP modalities: dysmenorrhea (3.28; $P < 0.001$), non-cyclic pelvic pain (2.71; $P = 0.009$), and cyclic bowel pain (3.40; $P < 0.001$). Placebo group did not show any significant changes in EAPP global or partial scores. In addition, the potentized estrogen group showed significant improvement in three of eight SF-36 domains (bodily pain, vitality and mental health) and depression symptoms (BDI). Placebo group showed no significant improvement in this regard. These results demonstrate superiority of potentized estrogen over placebo. Few adverse events were associated with potentized estrogen. *Conclusions:* Potentized estrogen (12cH, 18cH and 24cH) at a dose of 3 drops twice daily for 24 weeks was significantly more effective than placebo for reducing endometriosis-associated pelvic pain. *ClinicalTrials.gov Identifier:* [NCT02427386](https://clinicaltrials.gov/ct2/show/study/NCT02427386).

Available at: <https://doi.org/10.1016/j.ejogrb.2017.01.052>

Title: Protocol of randomized controlled trial of potentized estrogen in homeopathic treatment of chronic pelvic pain associated with endometriosis.

Authors: Marcus Zulian Teixeira, Sérgio Podgaec, Edmund Chada Baracat

Source: *Homeopathy* 2016; 105(3): 240-249.

Abstract: Endometriosis is a chronic inflammatory disease that causes difficult-to-treat pelvic pain. Thus being, many patients seek help in complementary and alternative medicine, including homeopathy. The effectiveness of homeopathic treatment for endometriosis is controversial due to the lack of evidences in the literature. The aim of the present randomized controlled trial is to assess the efficacy of potentized estrogen compared to placebo in the treatment of chronic pelvic pain associated with endometriosis. The present is a randomized, double-blind, placebo-controlled trial of a homeopathic medicine individualized according to program 'New Homeopathic Medicines: use of modern drugs according to the principle of similitude' (<http://newhomeopathicmedicines.com>). Women with endometriosis, chronic pelvic pain and a set of signs and symptoms similar to the adverse events caused by estrogen were recruited at the Endometriosis Unit of Division of Clinical Gynecology, Clinical Hospital, School of Medicine, University of São Paulo (Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo – HCFMUSP). The participants were selected based on the analysis of their medical records and the application of self-report structured questionnaires. A total of 50 women meeting the eligibility criteria will be randomly allocated to receive potentized estrogen or placebo. The primary clinical outcome measure will be severity of chronic pelvic pain. Statistical analysis will be performed on the intention-to-treat and per-protocol approaches comparing the effect of the homeopathic medicine versus placebo after 24 weeks of intervention. The present study was approved by the research ethics committee of HCFMUSP and the results are expected in 2016. *ClinicalTrials.gov Identifier:* <https://clinicaltrials.gov/ct2/show/NCT02427386>.

Available at: <https://doi.org/10.1016/j.homp.2016.03.002>

Title: 'Paradoxical pharmacology': therapeutic strategy used by the 'homeopathic pharmacology' for more than two centuries.

Author: Marcus Zulian Teixeira.

Source: *International Journal of High Dilution Research* 2014; 13(48): 207-226.

Abstract: Using the empirical or phenomenological research method by observing the effects of drugs in the human physiology, Samuel Hahnemann proposed the homeopathic treatment. He synthesized modern pharmacodynamic in the 'primary action' of the drugs and in the consequent and opposite 'secondary action' or 'vital reaction' of the organism. Noting that drugs with 'contrary' primary action to the symptoms of the diseases caused worsening of the symptoms after its withdrawal, as a result of secondary action of the

organism, Hahnemann proposed using this vital reaction (secondary action) in a curative way, administering to sick individuals the drugs that caused 'similar' symptoms in healthy individuals (therapeutic use of the similitude principle). According to the clinical and experimental pharmacology, this secondary action (vital reaction) of the organism is observed in the 'rebound effect' or 'paradoxical reaction' of several classes of drugs, which is the scientific basis of the 'homeopathic pharmacology'. In the last decade, exponents of modern pharmacology have suggested the therapeutic use of the paradoxical reaction ('paradoxical pharmacology'), proposing the use of drugs that cause an exacerbation of the disease in the short term to treat these same diseases in the long-term. In this review, we compare the various aspects between the 'homeopathic pharmacology' and the 'paradoxical pharmacology', reinforcing the validity of homeopathic assumptions and expanding the knowledge to optimize both proposals.

Available at: <http://highdilution.org/index.php/ijhdr/article/view/714>

Title: Similitude and rebound effect of drugs: scientific evidence and therapeutic application.

Author: Marcus Zulian Teixeira.

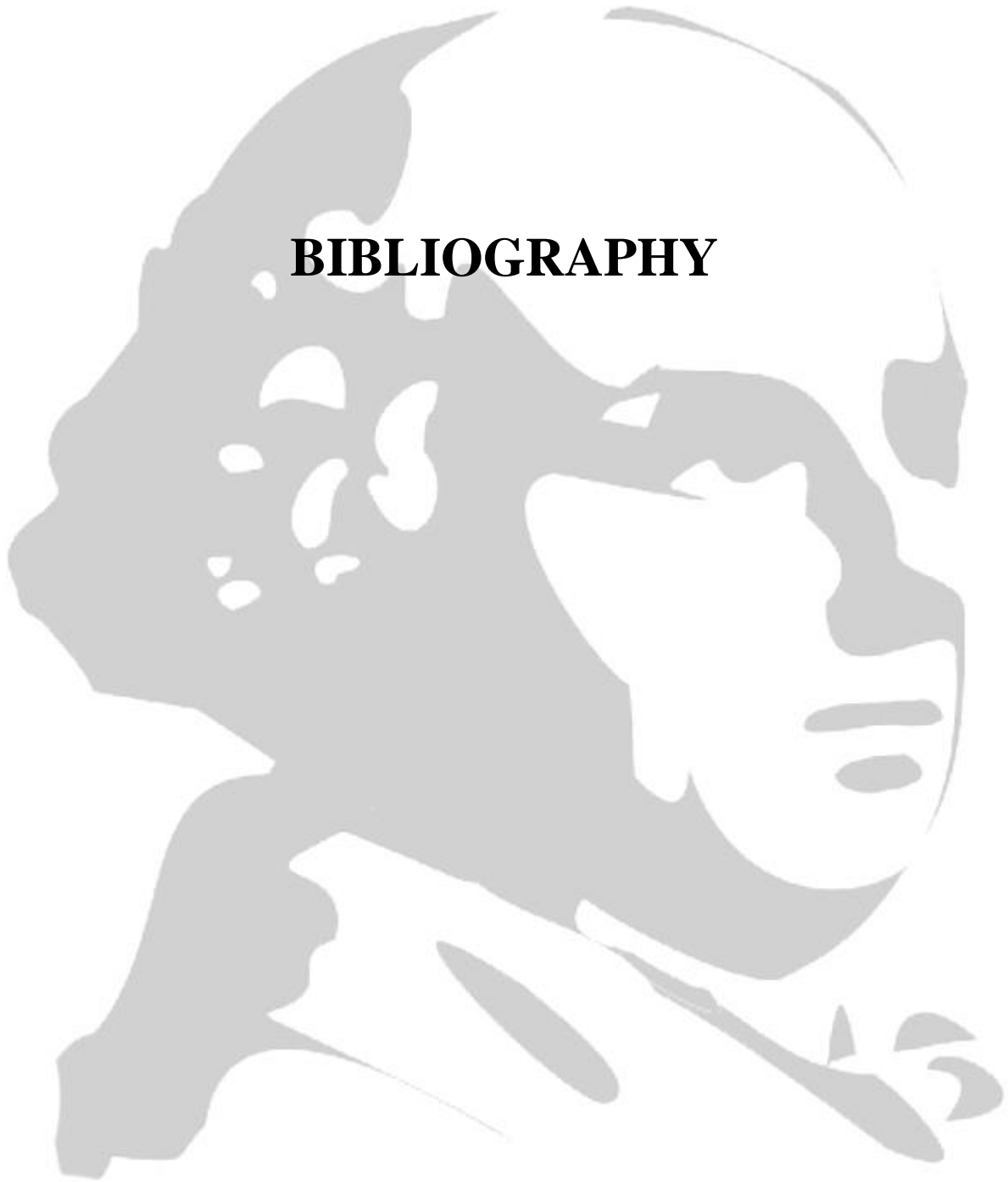
Source: *Homoeopathic Links* 2014; 27(2): 105-107.

Abstract: Samuel Hahnemann systematized the homeopathic model and the effects of drugs on the state of human health, describing a primary action of the drugs followed by a secondary and opposite action of the organism. In modern pharmacology, this secondary action is known as the rebound effect or paradoxical reaction of the organism, being described after the discontinuation of several classes of palliative (enantiopathic) drugs, i.e., those that act according to the principle of contrary (*contraria contrariis curentur*). Besides being able to cause severe and fatal iatrogenic events when appearing after the palliative use of modern drugs, the rebound effect might awaken a healing reaction if the very same drugs involved were employed according to the principle of similitude (*similia similibus*

Available at: <https://www.thieme-connect.de/products/ejournals/abstract/10.1055/s-0034-1368339>

Homeopathic Materia Medica of Modern Drugs

BIBLIOGRAPHY



References

1. Aguejoun O, Belougne-Malfati E, Doutremepuich F, Belon P, Doutremepuich C. Thromboembolic complications several days after a single-dose administration of aspirin. *Thromb Res.* 1998; 89: 123-127.
2. Akasa H, Usami M, Koiso K et al. Long-term clinical study of luteinising hormone agonist depot formulation in the treatment of stage D prostatic cancer. *Jpn J Clin Oncol.* 1992; 22:177-184.
3. American Hospital Formulary Service Drug Information. Bethesda: American Society of Hospital Pharmacists. 2000.
4. Andrioli G, Lussignoli S, Gaino S, Benoni G, Bellavite P. Study on paradoxical effects of NSAIDs on platelet activation. *Inflammation.* 1997; 21: 519-530.
5. Andrioli G, Lussignoli S, Ortolani R, Minuz P, Bellavite P. Dual effects of diclofenac on human platelet adhesion in vitro. *Blood Coag Fibrinol.* 1996; 7: 153-156.
6. Barbosa MSM, Ganança FF, Caovilla HH, Ganança MM. Vestibular rehabilitations: its meaning and application. *Rev Bras Med Otorrinolaringol.* 1995; 2(1): 24-34.
7. Beving H, Eksborg S, Malmgren RS, Nordlander R, Ryden L, Olsson P. Inter-individual variations of the effect of low dose aspirin regime on platelet cyclooxygenase activity. *Thromb Res.* 1994; 74(1): 39-51.
8. Borglin N. Inhibitory effect of Lynestrenol and Lyndiol on human ovarian function. *Int J Fertil* 1964; 9: 17.
9. Breul J, Paul R. Das Antiandrogenentzugssyndrom. [Anti-androgen withdrawal syndrome]. *Urologe (A).* 1998; 37(2): 156-158.
10. British Pharmacopoeia Commission. The British Pharmacopoeia. Belfast: The Stationery Office. 2010.
11. Charlton BG. Why Medical Hypotheses does not publish papers from the field of Alternative healing. *Med Hypotheses.* 2004; 63(4): 557-559.
12. Cloarec-Blanchard L, Funck-Brentano C, Carayon A, Jaillon P. Rapid development of nitrate tolerance in healthy volunteers: assessment using spectral analysis of short-term blood pressure and heart rate variability. *J Cardiovasc Pharmacol.* 1994; 24(2): 266-273.
13. Doutremepuich C, Pailley D, Anne MC, Seize O, Paccalin J, Quilichini R. Template bleeding time after ingestion of ultra-low doses of acetylsalicylic acid in healthy subjects. *Thromb Res.* 1987; 48: 501-504.
14. Dudgeon RE. Lectures on the theory and practice of homoeopathy. New Delhi: B Jain Publishers; 1982 (Reprint edition).
15. European Medicines Agency. Guideline for good clinical practice. London; 2002.
16. European Multicentre Study Group for Cabergoline in Lactation Inhibition. Single dose cabergoline versus bromocriptine in inhibition of puerperal lactation: randomised, double blind, multicentre study. *BMJ.* 1991; 302(6789): 1367-1371.
17. European Pharmacopoeia Commission. European Pharmacopoeia. 6th Edn. Belfast: The Stationery Office. 2009.
18. European pharmacopoeia. 3rd Ed. Strasbourg: Council of Europe, 1997.

Bibliography

19. Garcia CR, Pincus G. Effects on three 19-nor steroids on human ovulation and menstruation. *Amer J Obstet Gynec.* 1958; 75: 82.
20. Godoi N, Barbosa MSM, Campo MI, Suzuki FA, Ganança MM. The involving optokinetic stimulation as aid in labyrinthine compensation of peripheral vestibular syndromes. *Acta AWHO.* 1993; 12(2): 65-8.
21. Grossman E, Messerli FH. High blood pressure. A side effect of drugs, poisons and food. *Arch Intern Med.* 1995; 155(5): 450-460.
22. Hahnemann S. Cure and prevention of scarlet-fever. In: Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).
23. Hahnemann S. Essay on a new principle for ascertaining the curative power of drugs, and some examinations of the previous principles. *Journal der praktischen Arzneykunde.* 1796; 2: 391.
24. Hahnemann S. Essay on a new principle for ascertaining the curative power of drugs, with a few glances at those hitherto employed. In: Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).
25. Hahnemann S. How can small doses of such very attenuated medicines as homoeopathy employs have any action on the sick? In: Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).
26. Hahnemann S. *Materia Medica Pura.* New Delhi: B Jain Publishers; 1994 (Reprint edition). 2v.
27. Hahnemann S. *Materia Medica Pura: examination of the sources of the common materia medica.* New Delhi: B. Jain Publishers, 1994, vol. II, p 5-29.
28. Hahnemann S. On the power of small doses of medicine in general, and of *Belladonna* in particular. In: Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).
29. Hahnemann S. *Organon of homeopathic medicine.* Third American edition. English version of the fifth German edition. New York: William Radde, 1849.
30. Hahnemann S. *Organon of medicine.* 6th Edn. (Translated by William Boericke). New Delhi: B Jain Publishers, 1991.
31. Hahnemann S. *Reine Arzneimittellehre* (German Edn.). Scholarly Publishing Office, University of Michigan Library, 1830. 472p.
32. Hahnemann S. Some kinds of continued and remittent fevers. In: Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).
33. Hahnemann S. The chronic diseases: their peculiar nature and their homoeopathic cure (Translated by Robert E. Dudgeon). New Delhi: B Jain Publishers; 1983. 2v.
34. Hahnemann S. The medicine of experience. In: Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).
35. Hahnemann S. Treatment of the typhus or hospital fever at present prevailing. In: Dudgeon RE. The lesser writings of Samuel Hahnemann. New Delhi: B. Jain Publishers; 1995 (Reprint edition).
36. Hughes R. *A manual of pharmacodynamics.* 6th Edn. New Delhi: B Jain Publishers; 1980 (Second reprint edition).

Bibliography

37. Klein C, Morton N, Kelley S, Metz S. Transdermal clonidine therapy in elderly mild hypertensives: effects on blood pressure, plasma norepinephrine and fasting plasma glucose. *J Hypertens Suppl.* 1985; 3(4): 81-84.
38. Kovacs I. Experimentation of the rebound effect of biphasic oral contraceptives. *Ther Hung.* 1990; 38: 110-113.
39. Lan L, Di Nicolantonio R, Bramich C, Morgan TO. Brief treatment of SHR with na ACE inhibitor fails to cause long-term normotension but markedly increases mortality. *Clin Exp Pharmacol Physiol.* 1995; 22(1): 345-346.
40. Larsen R, Kleinschmidt S. Controlled hypotension. *Anaesthetist.* 1995; 44(4): 291-308.
41. Marodin G, Goldim JR. Confusions and ambiguities in the classification of adverse events in the clinical research. *Rev Esc Enferm USP.* 2009; 43(3): 690-696.
42. Martin RA, Barsoum NJ, Sturgess JM, de la Iglesia FA. Leukocyte and bone marrow effects of a thiomorpholine quinazolinone antihypertensive agent. *Toxicol Appl Pharmacol.* 1985; 81(1): 166-173.
43. Mousa AS, Forsythe MS, Bozarth JM, Reilly TM. Effect of single oral dose of aspirin on human platelet functions and plasma plasminogen activator inhibitor-1. *Cardiology.* 1993; 83(5-6): 367-373.
44. Pharmacopoeia internationalis. Stuttgart: Wissenschaftliche Verlagsgesellschaft, 1995.
45. Physicians' Desk Reference. 52nd Ed. Montvale: Medical Economics Company, 1998.
46. Plosker GL, Brogden RN. Leuprorelin: a review of its pharmacology and therapeutic use in prostatic cancer, endometriosis and other Sex hormone-related disorders. *Drugs.* 1994; 6: 930-967.
47. Purfitt K, Martindale WH. The complete drug reference. 32nd Ed. London: The Pharmaceutical Press, 1999.
48. Reid P, Kantoff P. Antiandrogens in prostate cancer. *Invest New Drugs.* 1999; 17(3): 271-284.
49. Shapiro AG, Thomas L. Efficacy of bromocriptine versus breast binders as inhibitors of postpartum lactation. *South Med J.* 1984; 77(6): 719-721.
50. Sweetman SC. Martindale: The Complete Drug Reference. 36th Edn. London: The Pharmaceutical Press. 2009.
51. Szontágh F. Experiences with Infecundin tablets. *Ther Hung.* 1968; 16: 1.
52. Teixeira MZ. 'Paradoxical strategy for treating chronic diseases': a therapeutic model used in homeopathy for more than two centuries. *Homeopathy* 2005; 94(4): 265-266.
53. Teixeira MZ. 'Paradoxical strategy for treating chronic diseases': a therapeutic model used in homeopathy for more than two centuries. *Homeopathy* 2005; 94(4): 265-266.
54. Teixeira MZ. Antidepressants, suicidality and rebound effect: evidence of similitude? *Homeopathy.* 2009; 98(2): 114-121.
55. Teixeira MZ. Antidepressants, suicidality and rebound effect: evidence of similitude? *Homeopathy.* 2009; 98(2): 114-121.
56. Teixeira MZ. Bronchodilators, fatal asthma, rebound effect and similitude. *Homeopathy.* 2007; 96(2):135-7.
57. Teixeira MZ. Bronchodilators, fatal asthma, rebound effect and similitude. *Homeopathy.* 2007; 96(2): 135-137.
58. Teixeira MZ. Evidence of the principle of similitude in modern fatal iatrogenic events. *Homeopathy.* 2006; 95(4): 229-236.

Bibliography

59. Teixeira MZ. Homeopathic use of modern drugs: therapeutic application of the organism paradoxical reaction or rebound effect. *Int J High Dilution Res.* 2011; 10(37): 338-352.
60. Teixeira MZ. Homeopathic use of modern medicines: utilisation of the curative rebound effect. *Med Hypotheses.* 2003; 60(2): 276-283.
61. Teixeira MZ. New homeopathic medicines: use of modern drugs according to the principle of similitude. *Homeopathy.* 2011; 100 (4): 244-252.
62. Teixeira MZ. NSAIDs, Myocardial infarction, rebound effect and similitude. *Homeopathy.* 2007; 96(1): 67-68.
63. Teixeira MZ. O princípio da similitude na moderna farmacologia [Similitude in modern pharmacology]. *Rev Homeopatia.* (São Paulo) 1999; 64(1-4): 45-58.
64. Teixeira MZ. Rebound acid hypersecretion after withdrawal of gastric acid suppressing drugs: new evidence of similitude. *Homeopathy.* 2011; 100(3): 148-156.
65. Teixeira MZ. Semelhante cura semelhante: o princípio de cura homeopático fundamentado pela racionalidade médica e científica [Similar cures similar: the homeopathic cure principle based by the medical and scientific rationality]. São Paulo: Editorial Petrus, 1998.
66. Teixeira MZ. Similitude in modern pharmacology. *Br Homeopath J.* 1999; 88(3): 112-120.
67. Teixeira MZ. Statins withdrawal, vascular complications, rebound effect and similitude. *Homeopathy.* 2010; 99(4): 255-262.
68. The British Pharmacopoeia. London: Stationery Office, 1999.
69. The United States Pharmacopeial Convention. The United States Pharmacopeia Dispensing Information. Easton: Mack Printing Co. 2004.
70. The United States Pharmacopoeia Dispensing Information. The United States Pharmacopoeial Convention Inc.: Mack Printing Co., Easton, Pa, 2000.
71. Tyler ET, Olson HJ. Clinical use of new progestational steroids in infertility. *Ann NY Acad Sci.* 1958; 71: 704.
72. United States. Code of Federal Regulations. 21 CFR. Food and drugs. 312 Investigational new drug application. Washington; 2003.
73. United States. Food and Drug Administration. MedWatch: The FDA safety information and adverse event reporting program. Form FDA 3500A – Mandatory reporting. Washington; 2009.
74. Vogelmeier C, Hederer B, Glaab T, Schmidt H, Rutten-van Mölken MP, Beeh KM, et al. Tiotropium versus salmeterol for the prevention of exacerbations of COPD. *N Engl J Med.* 2011; 364(12): 1093-1103.
75. Wagner H, Kreher B, Jurcic K. *In vitro* stimulation of human granulocytes and lymphocytes by pico and fentograg quantities of cytostatic agents. *Arzneim Forsch/ Drug Res.* 1988; 38: 273-275.
76. Wagner H, Kreher B. Agents cytotoxiques comme immunostimulants. In: *Signaux et Images.* (M. Bastide ed.). Paris: Alpha Bleue Ed., 1990, p 9-29.
77. Webster J. A comparative review of the tolerability profiles of dopamine agonists in the treatment of hyperprolactinaemia and inhibition of lactation. *Drug Saf.* 1996; 14(4): 228-238.

Bibliography

78. Wettemann M. Hahnemann's use of 'Fragmenta de viribus medicamentorum' in his early medical practice: analysis based on a patient file. *Med Ges Ghesch.* 2001; 20:221-30.
79. World Health Organization (WHO). Council for International Organizations of Medical Sciences. International ethical guidelines for biomedical research involving human subjects. Geneva; 2002.
80. World Health Organization (WHO). Council for International Organizations of Medical Sciences. Guidelines for preparing core clinical safety information on drug from CIOMS Working Group III. Geneva; 1995.
81. World Health Organization (WHO). Council for International Organizations of Medical Sciences. International ethical guidelines for biomedical research involving human subjects. Geneva; 2002. World Health Organization (WHO). Council for International Organizations of Medical Sciences. Guidelines for preparing core clinical safety information on drug from CIOMS Working Group III. Geneva; 1995.
82. World Health Organization (WHO). Guidelines for good clinical practice (GCP) for trials on pharmaceutical products. WHO Technical Report Series, No. 850, 1995; Annex 3.
83. World Health Organization (WHO). The Uppsala Monitoring Centre. The importance of pharmacovigilance. Safety monitoring of medicinal products. 2002.
84. Yun AJ, Lee PY, Bazar KA. Paradoxical strategy for treating chronic diseases where the therapeutic effect is derived from compensatory response rather than drug effect. *Med Hypotheses.* 2005; 64(5): 1050-1059.